





# DAIRY PROJECT

ANNUAL PROGRESS REPORT – YEAR THREE August 30, 2014



Agreement No.: 391-A-00-11-01206-00 Dairy Project

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### **LIST OF ACRONYMS**

AI Artificial Insemination

AITS Artificial Insemination Technicians
AOR Agreement Officer's Representative

**BOG** Board of Governors

**DRDF** Dairy and Rural Development Foundation

FM Field ManagerFO Field OperationsGM General Manager

**LBEs** Livestock Business Entrepreneurs

**LHW** Livestock Health Worker

**LN** Liquid Nitrogen

**M&E** Monitoring and Evaluation

MSI Management Systems International

MTs Master Trainers

NGO Non-Governmental Organization
NRSP National Rural Support Program

**OMB** Office of Management and Budgeting

PCP Pakistan Centre of Philanthropy

**PD** Project Director

PMP Performance Monitoring Plan
PMU Project Management Unit

**PVTC** Punjab Vocational Training Center

RFP Request for Proposal SMs Social Mobilizers

**SOP** Standard Operating Procedures

TOR Terms of Reference
TOTs Training of Trainers

**UAF** University of Agriculture Faisalabad

**US** United States

**USAID** United States Agency for International Development

**UVAS** University of Veterinary & Animal Sciences

Vanda Concentrated animal feed, locally known as "Vanda"

**VTIs** Vocational Training Institutes

**WLEWs** Women Livestock Extension Workers

**ZM** Zonal Manager<sup>i</sup>

### **EXECUTIVE SUMMARY**

The dairy and livestock sector contributes 11 percent of the total gross domestic product of Pakistan. The country has an estimated 67 million cattle, with seven million families earning their income from small scale dairy farming. Most of the dairy farmers do not follow progressive dairy farming practices and have limited access to veterinary and breed improvement services. It is in this context that the Dairy Project's extensive training programs for dairy farmers, Women Livestock Extension Workers (WLEWs) and Artificial Insemination Technicians(AITs) are playing an important role in transforming the livelihoods of rural communities. The Dairy Project is aimed at fostering sustainable increase in dairy and livestock productivity through adoption of best dairy farming practices, breed improvement, availability of timely extension services, and promotion of livestock businesses. Also, the Dairy Project contributes to the USAID's strategic objective of creating job opportunities and increasing incomes in Pakistan.

The Dairy Project has continued trainings for AITs, WLEWs and farmers in the third year of its implementation. During year three, the Dairy Project covered almost 60 districts in Punjab and Khyber Pakthunkhwa (KPK) provinces. Majority of the beneficiaries hailed from the districts Bhawalpur, Bhawalnagar, Jaffarabad, Khanewal, Lodhran, Multan, Muzaffargarh, Rahim Yar Khan and Vehari. Farmers and AITs were also selected from Khyber Pakthunkhwa (KPK)<sup>1</sup>, Sindh<sup>2</sup>and Balochistan<sup>3</sup>provinces. Selection of farmers, AITs and WLEWs is carried out through extensive community mobilization in each village, besides screening of the candidates against the set criteria.

Based on internal and external evaluations, it is found that the project has performed better in its third year as compared to first and second years. Awareness about better farming practices has been raised in 67 districts through TV/Radio infomercials. Classroom training is also provided to selected farmers. Indicators suggest that an increased number of trained farmers are adopting best practices. As a result of enhanced awareness and trainings, the dairy income of trained farmers has increased by an estimated 18 percent.

The AITs trained by the Dairy Project have been performing excellently. The number of insemination procedures performed each day per AIT is increasing gradually. This can be attributed to the rise in demand for imported semen and increased awareness in the community for better breeds to improve milk and meat production. Furthermore, success of such techniques is also improving overtime in the last four quarters. Consequently, AITs are able to earn a decent livelihood for their families. However, the income of WLEWs is increasing steadily over the period of time but not like that of AITs. The prime reasons are social barriers to the working of female component in the village environment.

This annual progress report describes the operations and progress in the third year i.e. July 1, 2013 to June 30, 2014, of the project implementation. A few stories of successful and hardworking beneficiaries have also been added to highlight the Dairy Project's success in

USAID | Pakistan: Dairy Project Annual Progress Report-Year Three

<sup>1</sup> KPK districts: Abbttoabad, Karak, Kohat, Mansehra, Malakand, Mardan, Noshehra and Upper Dir.

<sup>2</sup> Sindh districts: Badin, Dadu, Ghotki, Hyderabad, Karachi, Kashmor, Khair Pur, Larkana, Matiari, Mirpur Khas, Nawab Shah, Noshehro Feroz, Sanghar, Shaheeb Benazirabad, Shikarpur, Thatta and Umerkot

<sup>3</sup> Balochistan district: Jaffarabad, Loralai, Naseerabad, Pishin, Qilla Abdullah, Quetta and Sohbatpur.

achieving the envisioned results. Figure 1 below demonstrates targets and achievements for the said reporting period.

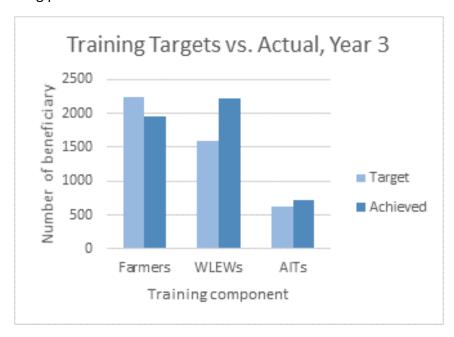


Figure 1: Targets Vs. Achievement

### **PROJECT FINANCIAL SUMMARY**

- I. Agreement No.: 391-A-00-11-01206-00;
- II. Date of Authorization: January 28<sup>th</sup>, 2011;
- III. Date of Commencement of Project: July 15<sup>th</sup>, 2011 (Under Modification No. 2 to the Agreement);
- IV. Total USAID Contribution: US \$ 14,018,777/-
- V. Amount Obligated till July 31, 2014: US \$ 14,018,777/-
- VI. Total Project Funds Expended till June 30, 2014:US \$ 13,681,782/-
- VII. Funds Allocated for No Cost Extension Period (July 15, 2014 to October 15, 2014): US \$ 192,000/-

### **BACKGROUND AND SCOPE**

The Dairy Project commenced in July 2011 under USAID Pakistan's Economic Growth Strategy with Dairy and Rural Development Foundation (DRDF) as implementer. DRDF is a not for profit, non-government entity established in 1996 by progressive cattle breeders, extension workers, and the milk processing industry. DRDF has worked extensively with dairy producers across Punjab on various activities including breeding, feeding, management and health improvement.

The Dairy Project contributes to the USAID's strategic objective of creating job opportunities and increasing incomes. More so, the activities of the Dairy Project are aligned with Pakistan's development agenda, and its goal and objectives reflect national and regional priorities. The Dairy Project is being implemented in all four provinces, with major focus on Punjab. The project head-office is based in Lahore with zonal offices in Kamalia, Vehari, Burj Attari and Multan. The project has a three-year implementation time span, from July 2011 to July 2014. For a detailed overview of training program see annex 1

The dairy and livestock sector contributes 11 percent of the total GDP of Pakistan. Around 7 million families are associated with this sector. More than half of the dairy farmers belong to Punjab. Majority of dairy farmers are owners of small herds (2 to 3 animals) and have limited access and knowledge of progressive dairy farming practices and quality extension services that can significantly improve the milk yield and farmers' dairy income.

In this context, the project is aiming to foster sustainable increase in dairy and livestock productivity through adoption of best dairy farming practices, breed improvement, availability of timely extension services and promotion of livestock businesses. The Dairy Project's mission comprises of the following key objectives:

- a) Train and build the capacities of dairy farmers in best farming practices.
- b) Develop human resource to provide artificial insemination and basic veterinary services at village level
- c) Promote entrepreneurship through training unemployed youth and building linkages with input suppliers and clients.

In order to achieve the above mentioned objectives, the implementation strategy of the Dairy Project includes the following components:

- i. Training and support for 9,100 dairy farmers from around Pakistan.
- ii. Training and support for 2,000 Artificial Insemination Technicians (AITs).
- iii. Training and support for 5,000 Women Livestock Extension Workers (WLEWs).
- iv. Awareness campaign that will increase knowledge of best dairy farm practices

This annual progress report describes the operations and progress in the third year i.e. July 1, 2013 to June 30, 2014, of the project. The report also highlights achievements towards the intended results, major challenges faced in implementation, lessons learnt and the way forward.

### **Progress Highlights at a Glance**

The project continued its trainings for AITs, WLEWs and farmers in the third year of its implementation. During year-three, the Dairy Project trained beneficiaries from 60 districts across Pakistan. Majority of the beneficiaries were trained from the districts Bahawalpur, Bahawalnagar, Jaffarabad, Khanewal, Lodhran, Multan, Muzaffargarh, Rahim Yar Khan and Vehari. Farmers and AITs were also selected from Khyber Pakhtunkhwa (KPK)<sup>4</sup>, Sindh<sup>5</sup>and Baluchistan<sup>6</sup> provinces. Selection of farmers, AITs and WLEWs is carried out through community mobilization in each village besides screening of the candidates against the set criteria. The table below presents quarter wise targets and achievements for each of the three training components. Annex 5 gives a breakdown of monthly training. Project trained less number of farmers in 2<sup>nd</sup>, 3<sup>rd</sup> and 4<sup>th</sup> quarters as compared to the targeted number, as large number of farmers were trained in first quarter of the reporting year and first two years.

	Jul- 20		Oct-Dec 2013		Jan-Mar 2014		Apr-Jun 2014		Total	
Beneficiary type	Т	А	Т	А	Т	Α	Т	Α	Т	А
Training of farmers on best practices in dairy farming	690	922	660	677	674	194	210	170	2,234	1,963
Training of Women Livestock Extension Workers (WLEWs)	400	677	600	1052	600	498	0	0	1,600	2,227
Training of Artificial Insemination Technicians (AITs)	200	317	190	205	240	193	0	0	630	715
T= Targets A=Achievement										

Table 1 Targets Vs. Achievements- Quarterly

#### **Training of Farmers**

Performance Indicators-Farmer Training	Targets	Achievement
Increase in milk productivity after applying at least three learned best practices	At least 10 percent increase in milk yield	21 percent
Increase in the project-assisted household real annual income from dairy activities	At least 10 percent increase in household real income	18 percent

<sup>4</sup> KPK districts: Abbttoabad, Karak, Kohat, Mansehra, Malakand, Mardan, Noshehra and Upper Dir.

<sup>5</sup> Sindh districts: Badin, Dadu, Ghotki, Hyderabad, Karachi, Kashmor, Khair Pur, Larkana, Matiari, Mirpur Khas, Nawab Shah, Noshehro Feroz, Sanghar, Shaheeb Benazirabad, Shikarpur, Thatta and Umerkot

<sup>6</sup> Balochistan district: Jaffarabad, Loralai, Naseerabad, Pishin, Qilla Abdullah, Quetta and Sohbatpur.

	Percentage of project-assisted farmers using at least three best practices relative to the baseline	60 percent farmers adopted three or more best practices	89 percent
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**Table 2 Farmers Component Highlights** 

### Training of WLEWs

Performance Indicators-WLEWs Training	Targets	Achievements
Average per month income of WLEWs from livestock services relative to the baseline	Income of at least PKR. 3,000 per month (US\$ 32)	PKR. 1,144
Incidence of Hemorrhagic Septicemia and Foot and Mouth Disease in: a). dairy animals owned by project-assisted households; and b). dairy animals of farmers assisted by WLEW relative to the baseline	At least 20 percent reduction in the incidence on average.	63% reduction in HS and 5 percent reduction in FMD incidence
Number of project-trained WLEWs providing services as self-employed extension workers	At least 60 percent of the trained WLEWs providing livestock services	64 percent
Number of WLEWs operating/managing project- supported milk collection points in project- assisted communities	At least 20 Milk Collection points	16
Number of WLEWs offering feed, nutrients, and other inputs for sale to farmers	60 percent(797 WLEWs)	78 percent

**Table 3 WLEWs Component Highlights** 

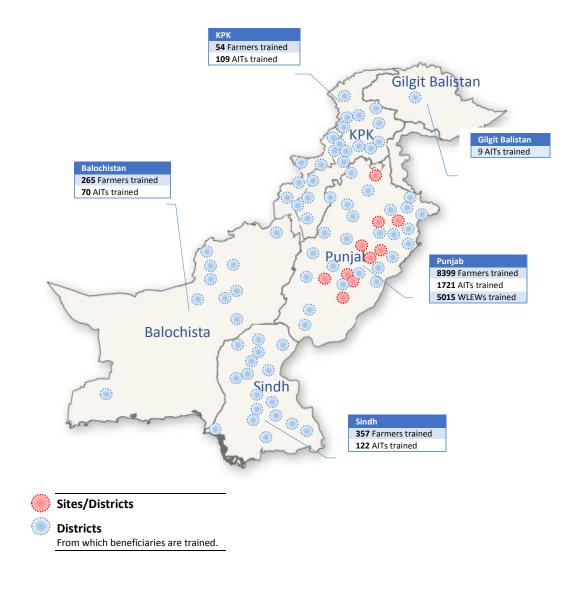
### **Training of AITs**

Performance Indicators – AITs	Targets	Achievements
Average per month income of AITs from providing AI services relative to the baseline	(For each year): Income of at least PKR. 3,000 (US\$ 32)per month	PKR. 6,804
Percentage of AITs providing professional services to communities	60 percent of AITs	97 percent
Ratio of insemination procedures to pregnancy	(for each year): At most 1.7 insemination per pregnancy	1.53

**Table 4 AITs Component Highlights** 

### **Geographic Coverage**

The Dairy Project's field offices and training sites have been established at the following sites: Burj Attari (District Sheikhupura), Rawalpindi (District Rawalpindi), Faisalabad (District Faisalabad), Renala Khurd (District Okara), Sukheki (District Hafiz Abad), Kamalia (District Toba Tek Singh), Multan (District Multan), Khanewal (District Khanewal), Vehari (District Vehari) and Hasilpur (District Bahawalpur). Through these sites, the project has successfully achieved the envisaged training targets. The project not only focused in Punjab region but also tapped into other provinces as well and now the project's success can be assessed across Pakistan. Following figure shows the districts covered by the Dairy project.



Sr#	Name	Designation	<b>Employment Type</b>		Email	Contact Number
			Seconded*	Contracted		
1	Jack Moser	Chief of Party	~		jack@dairyproject.org.pk	0092-345-5055151
2	Sheikh Waqar Ahmad	Technical Advisor	<b>✓</b>		sheikh.wagarahmad@pk.nestle	0092-300-8504699
3	Dr. Muhammad Ashraf	General Manager (Field Operations)	•		m.ashraf@dairyproject.org.pk	0092-307-7776169
4	Malik Ghulam Abbas	Financial Controller	<b>✓</b>		abbas@dairyproject.org.pk	0092-344-4476312
5	Sajid Mukhtar	HR Manager	~		sajid@dairyproject.org.pk	0092-344-4476197
6	Abdul Khaliq	Procurement Manager		<b>✓</b>	akhaliq@dairyproject.org.pk	0092-344-4476264
7	Muhammad Tahir Ali	Manager M & E		<b>✓</b>	a.tahir@dairyproject.org.pk	0092-307-7776190
8	Muhammad Zeeshan	Manager Internal Audit		<b>✓</b>	zeeshan.haider@dairyproject.org.pk	0092-307-7776289
9	Adil Sultan	Manager Communication		<b>✓</b>	adil@dairyproject.org.pk	0092-344-4476026

Table 5 Project **K**ey **P**ersonnel

\*Seconded: Staff From Nestle' Pakistan for Assistance to DRDF

Sr. No.	Position Types	*Seco	nded	Contracted		Outsourced		Internship	
		Male	Female	Male	Female	Male	Female	Male	Female
1	HODs/PD/FC/HR	4	1	-	-	-	-	-	-
2	Managers	-	2	7	2	-	-	-	-
3	PMU Support Staff	-	-	15	6	14	-	11	11
4	Field Support Staff	-	1	81	34	77	6	46	31
	Total	4	4	103	42	91	6	57	42

**Table 6 Project Staffing** 

## **SECTION 1: FUNDS EXPENDED DURING REPORTING YEAR**

Sr. No.	Expense Categories under Cooperative Agreement		
1	Personnel Cost	1,100,091	21%
2	Travel	480,879	9%
3	Equipment and Supplies	1,410,823	27%
4	Other Direct Costs	2,246,299	43%
Total		5,238,092	100%

**Table 7 Project Financial Summary** 

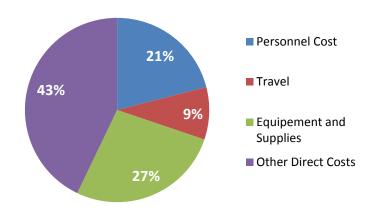


Figure 2 Expense by category

### **Developmental Task Budget and Variances**

	As of end of reporting period (July 13 – June 14)							
Developmental Tasks		Budgeted Expenditure	Actual Expenditure	Variance \$	Variance %			
1	WLEWs	1,515,775	1,715,714	(199,939)	(13)%			
2	AITs	1,362,453	1,081,730	280,722	21%			
3	Farmers	678,157	686,690	(8,534)	(1)%			
5	Communications	624,013	366,055	257,957	41%			
4	Others	1,254,170	1,387,903	(133,732)	(11)%			
	Total	5,434,568	5,238,092	196,475	4%			

**Table 8 Developmental Task Budget and Variance** 

In first year of the implementation, the project experienced a variation in budgeted and actual expenditure due to the delays in approval and setting up policies, processes and procedures in the area of financial management, procurement, human resource management and travelling. However, in second and third year, the project had a much accurate forecasting and hence the total actual expenditures and the total budgeted/forecasted expenditures are quite aligned and there is just four percent variance in the third year.

The below table provides a snapshot of budgeted expenditures for fourth year of the project. The budget forecasting is done keeping in view the training targets and associated activities in year four.

Sr. No.	Expense Categories	Year 4(July-14 to June-15)
1	Personnel Cost	1,125,423
2	Travel	397,058
3	Equipment and Supplies	1,224,186
4	Other Direct Costs	1,566,303
	Total	4,312,970

**Table 9: Expense by Category (Planned)** 

### **SECTION 2: PROGRESS AND PERFORMANCE**

The training progress and the training's effect on livelihoods are evaluated by the monitoring and evaluation (M&E) team of the project. The M & E team has been conducting sample based quarterly surveys since last year to get the necessary data to evaluate the project performance. Last year, the quarterly surveys were conducted in October 2013, January and April 2014. No survey was conducted in July 2014 as the project had ceased its training operations in June 2014. In the quarterly surveys, data is collected against performance indicators of all three components of the program for the previous quarter. The statistics for the Annual Progress Report are calculated as simple and weighted averages of data from these three quarterly surveys. For brief details on evaluation methodology see annex-2

### **Training and Support for Dairy Farmers**

Dairy Project is creating awareness about best practices through various trainings. Trainings include two-day training of traditional small farmers, four-days training of progressive farmers and one month training of commercial farmers. Through these trainings, offered under the Dairy Project, farming community is significantly adopting modern dairy farming techniques, resulting in increased milk production and long term development in the dairy sector.

### Farmers' Training Highlights

In the current reporting period, a total of **2,234** farmers were targeted for training from 36 districts. A total of **1,963** famers were trained in third year, which included **1,781** progressive farmers who attended four-day training and **182** farm managers for commercial farming. To date, the Dairy Project has successfully trained a total of **9,286** farmers pursuing its overall target of 9,100 farmers. After the successful completion of trainings, all participants were provided with support kits, required to implement the learned best practices and help trained youth to kick start the entrepreneurship. Furthermore, these farmers were provided vital follow up support on regular basis. Additionally, over the three years, 813 farmers from provinces other than Punjab received four-day training in cooperation with Nestle, Engro, SRSP, Sungi Development Foundation and BRSP. This included 310 farmers from Sindh, 251 farmers from Khyber-Pakhtunkhwa and 252 farmers from Baluchistan. Moreover, a proud feat of the Dairy Project is to train **a group of 14 female farmers** from Baluchistan with the help of Sungi Development Foundation. The female farmers received four-day training.

Sr. No.	Indicators	Values	
1	Beneficiaries targeted during the reporting period	2,234	
2	Beneficiaries reached during the reporting period	1,963	
3	Beneficiaries targeted to date*	9,100	
4	Beneficiaries reached to date*	9,286	
* 31 <sup>st</sup>	* 31 <sup>st</sup> of June, 2014		

**Table 10 Farmers Training Overview** 

Sr. No.	Province		Number of Farmers Trained (Jul 13 – Total Jun 14)		
			One Month	Four- days Training	
1	Baluchistan		1	252	253
2	KPK		-	251	251
3	Punjab		176	1278	1454
4	Sindh		5	-	5
		Total	182	1781	1963

**Table 11: Province-wise Farmers' Training** 

In the reporting period, Dairy Project carried out four-day farmers' training at Nestle Sarsabz/ Sukheki model farms and the project owned farms in Khanewal and Multan. Keeping in view farmers feedback, 52 commercial farmers were trained in Multan for onemonth training which was based on field practical. In the training session, master trainers (MTs) covered the topics on feeding, breeding, farm management, adoption of best practices and commercial dairy farming. After training, field teams extended follow up support to the trained farmers through regular visits. To assist farmers in silage making, project purchased four silage machines in Multan and Vehari districts. By using these machines, 288 acres of fodder was preserved. 6,650 farmers participated in different silage shows to learn how to make silage by using silage machines. After positive feedback and demand for more silage shows from farmers, the Dairy Project has taken steps to ensure permanent, timely and accurate technical guidance about silage by training nine unemployed rural guys in Kamalia and Multan (5 in Kamalia, 4 in Multan) They were trained on silage making, safety measures and machine's maintenance. These technicians are now certified by the Dairy Project and can provide on demand silage making and silage preservation services to any farmer.

In order to train farmers on a more localized level, a pilot of three dairy farms of 10 to 20 herd size were selected to be upgraded as model dairy farms. An agreement has been drafted between the Dairy Project and the farm owners for farm up-gradation on 50 percent cost share basis. Up-gradation on these farms is in final process.

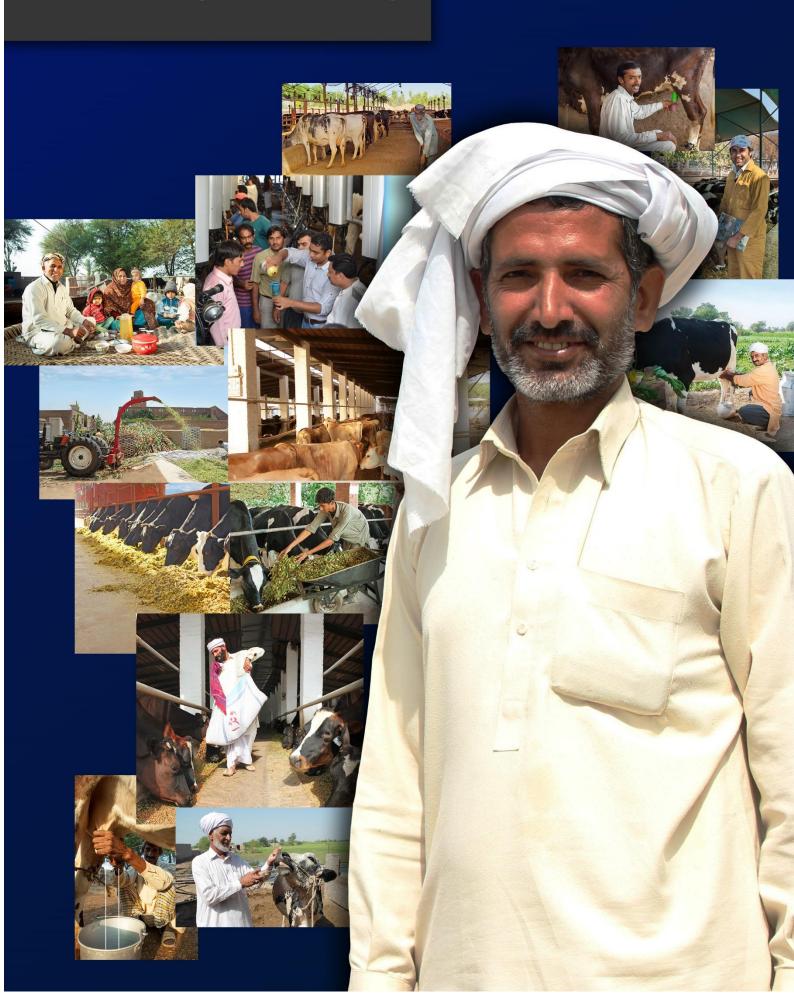
### **Results on performance indicators**

The following table shows the training impact on our beneficiaries. More than 85 percent farmers have adopted new best practices and there is a marked increase of more than 15 percent in the milk yield. This has resulted into an additional income of PKR. 6,000 for the dairy farmers on an average. Moreover, a significant decrease in lethal bovine diseases is also recorded. Dairy To reinforce the afore-mentioned training impact, Dairy Project's Communication's team has continued synchronizing its mass awareness campaign about best farming practices reaching out more than 80 districts.

Sr. No	Indicators	Targets	Achievements (Combined on average)	Achievements (Weighted on average)
1	Average increase in the project- assisted household real annual income from dairy activities relative to the baseline	At least 10 percent increase in the household's income from dairy activities.	17 percent	18 percent
2	Incidence of Hemorrhagic Septicemia and Foot and Mouth Disease in: a). Dsairy animals owned by project-assisted households; and b). dairy animals of farmers assisted by WLEW relative to the baseline	At least 20 percent reduction in the incidence on average.	Reduction in HS incidents: 45 percent Reduction in FMD incidents: percent	Reduction in HS incidents: percent Reduction in FMD incidents: Five percent
3	Average monthly (per animal owned by project-assisted household) quantity of milk produced relative to the baseline	At least 10 percent increase in milk yield.	19 percent	21percent
4	Percentage of farmers using services of WLEWs relative to the baseline	At least ten percent farmers using services of WLEWs.	17 percent	19 percent
6	Percentage of project-assisted farmers using at least three best practices relative to the baseline	60 percent farmers adopted three best practices	86 percent	89 percent
7	Number of villages reached with TV and/or Radio sketches	At least 700 villages per year	Nationwide 88 districts and 238 tehsils were reached in Phase Two of the TV/Radio campaign	Nationwide 88 districts and 238 tehsils were reached in Phase Two of the TV/Radio campaign
8	Number of project-assisted farmers trained in business practices, and book-keeping	97.7 percent farmers	100 percent	100 percent

**Table 12 Farmers Training Performance** 

# FARMER



### **Training and Support for Artificial Insemination Technicians (AITs)**

One of the most important components of Dairy Project is training on artificial insemination. It has a long term objective of breed improvement. Dairy Project is providing five-week training to AITs on insemination techniques. AITs are trained at the project training sites at Punjab Vocational Training Center (PVTC) in Burj Attari, Faisalabad and Rawalpindi. As AITs will be dealing with farmers during the course of their professional work, a five-day extensive village survey is made a part of the AI training so as trainees may know breeds and their production status in their home villages. Trainees are also given lectures and demos on business, marketing and road safety. Visits to Sukheki farm and cattle markets are also part of the AI training. The final examination and practical are administered by University of Veterinary and Animal Sciences (UVAS), Lahore and Arid Agriculture University, Rawalpindi. After successful completion of training, AITs are provided with a support kit that includes a liquid nitrogen gas cylinder for semen storage, semen straws, mobile phone and other necessary equipment. Two months post-training follow up is also arranged for technical support of AITs which will ensure accuracy of their skills.

### **AITs' Training Highlights**

In the current reporting period, **715 AITs** were trained from a total of 49 districts. As of July, 2014, the project has trained **2,032 AITs**. A Total of **311 AITs** have been trained from provinces other than Punjab with the collaboration of organizations like Engro, Din Foundation, Flora Life Sciences/Lower Sindh, L&DD Baluchistan, Mehran Traders, SRSP, Sungi Development Foundation and Super Genetics. With regards to the selection of AITs from Sindh, the route supply network of semen and Liquid nitrogen gas supply companies was particularly considered.

Sr. No.	Indicators	Values
1	Beneficiaries targeted during the reporting period	630
2	beneficiaries reached during the reporting period	715
3	Beneficiaries targeted to date*	2,000
4	Beneficiaries reached to date*	2,032
* 31 <sup>st</sup> of June, 2014		

**Table 13 AITs Training Overview** 

Province	AITs Trained
Punjab	1,721
Sindh	122
Khyber-Pakhtunkhwa	110
Baluchistan	70
Gilgit Baltistan	9
Total	2,032

**Table 14: Overview of AITs Trained From Other Provinces** 



In order to facilitate the work of established entrepreneurs (AITs), the project also provides a motorbike if a trained AIT has successfully met the performance criteria. The performance criteria have two elements:

- (i). Number of inseminations: Minimum 50 inseminations are required during the first 90 days of receiving AI kit,
- (ii). Conception Rate: Minimum conception rate of 40 percent is required. For checking this, a palpation test is conducted on five randomly selected animals which have been inseminated by the AIT.

In year-three, the project has awarded 872 motorbikes among AITs showing good performance. A total of **1,497** AITs received motorbikes till July 15, 2014.

In the provinces other than Punjab, follow up was given to trained AITs by stakeholders. 152 AITs (57 from Sindh and 95 from KPK) passed criteria and were awarded motor bikes. Dairy Project team also conducted a performance survey in Baluchistan in which 31 out of 46 AITs qualified for the bike.

	Bikes Distributed in		
Province	Year Three	Lifetime of Project	
Punjab	720	1,345	
Sindh	57	57	
Khyber-Pakhtunkhwa	95	95	
Total	872	1497	

**Table 15: Motor Bike Distribution by Province** 

### **Results on Performance Indicators**

Project trained AITs are showing exceptional performance. The following table provides statistics on key performance indicators. Number of insemination procedures performed by each AIT is increasing gradually and hopefully will reach one procedure per day within a few months. This increase can be attributed to the rise in demand for imported semen and enhanced awareness in the community of better breeds to improve milk and meat yields. This also shows that as AITs gain experience and increase their network, the demand for their services increases as people shift away from quacks to trained AITs. Similarly, 1.48 conception rate for AI done by trained AITs is remarkable, which is well below the benchmark of 1.8 procedures per pregnancy.

Hence, success of such techniques – improvement in number of procedures is contributing AITs to earn a decent livelihood for themselves and families. On average an AIT earns more than PKR. 6,500 per month. Some AITs are earning up-to PKR 30,000 per month. Naturally, AITs who have been awarded with a bike can even earn more. On average AITs awarded with bikes earn PKR 2,000 per month.

Sr. No.	Indicator	Targets	Achievements (Combined average)	Achievements (Weighted average)
1	Average per month income of AITs from providing AI services relative to the baseline	(For each year): At least Income PKR. 3,000 (US\$ 32) per month	PKR. 6,504	PKR. 6,804
2	Number of insemination procedures performed (disaggregated by semen type (local, imported/crossbred) relative to the baseline	(for each year): At least one insemination per day	0.8	0.8
3	Number of villages served by project-trained AITs	3,629 villages	-	5,127
4	Percentage of AITs t providing professional services to communities	60 percent of AITs	97 percent	97 percent
5	Ratio of insemination procedures to pregnancy	(for each year): At most 1.7 insemination per pregnancy	1.48	1.53
6	Number of AITs trained	630 AITs	715 AITs	715 AITs
7	Number of villages served by project-trained AITs offering services to farmers	756 villages		-
8	Percentage of project- trained AITs introduced to input suppliers	100 percent	100 percent	100 percent
9	Number of AITs trained in book-keeping, business management	630 AITs	715 AITs	715 AITs

**Table 16: AITs Training Performance** 

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### **Training and Support for Women Livestock Extension Workers (WLEWs)**

Women Livestock Extension Workers (WLEW) component is an important component of the Dairy Project as it ensures provision of timely quality extension and basic veterinary services to dairy farmers at their door steps. Moreover, this component serves the long term goals of female empowerment and establishing women as credible entrepreneurs in rural areas. WLEWs receive hands on one-month training, comprising 30 percent theoretical and 70 percent practical components. Like AIT component, exams and certification are administered by UVAS. Later, each trainee is provided with an initial business support kit comprising of medicines, animal feed and a mobile phone. Training is followed by one-month technical support to the trained WLEWs. Farmer help camps are also arranged at the end of each batch in selected villages to treat animals free of cost. Furthermore, visits of Model Dairy Farm, Veterinary Hospital and milk collection center are also arranged for trained WLEWs, to give them practical insight about modern farm practices and animal treatment.

### **WLEWs' Training Highlights**

A total of **2,227** WLEWs were trained in the reporting period against a target of 1,600. Thus, targets for year three were achieved comprehensively. WLEWs in year three mostly hailed from districts Bhawalnagar, Khanewal and Vehari. To date, the project has trained **5,015** WLEWs surpassing the project's envisaged target of 5,000.

Sr. No.	Indicators	Values	
1	Beneficiaries targeted during the reporting period	1,600	
2	Beneficiaries reached during the reporting period	2,227	
3	Beneficiaries targeted to date*	5,000	
4	Beneficiaries reached to date*	5,015	
* 31 <sup>st</sup> of Ju	* 31 <sup>st</sup> of June, 2014		

**Table 17: WLEWs Training Overview** 

Due to active presence of WLEWs in the region, their links with the dairy farmers and the versatility of their jobs, the Dairy Project has increased the scope of their activities by initiating ear-tagging and village milk collection (VMC). Animal Registration by Ear tagging:

Dairy Project took initiative to help ensure record of good breed and high production animals' data through ear tagging of animals. During the reporting period, 472 animals (254 in Multan, 65 in Kamalia, 153 in Vehari) have been ear tagged by WLEWs.

#### **Refresher Courses:**

In order to further improve the efficiency level of trained WLEWs, the Dairy project arranged one week refresher for 363 high achiever WLEWs in Kamalia and Vehari where they were trained about record keeping and ethno medicine. This refresher helped WLEWs to enhance their skills for improved income.

### **VMC Training:**

In order to further beef-up WLEWs' skills and their professional network, the Dairy project arranged f advance VMC training for WLEWs and 16 WLEWs hailing from Kamalia, Vehari

and Multan were trained and provided with VMC kit. Thereafter, the trained women were then linked with milk processing companies.

### Results on performance indicators (as per PMP)

Sr. No.	Indicators	Targets	Achievements (Combined average)	Achievements (Weighted average)
1	Average per month income of WLEWs from livestock services relative to the baseline	Income of at least PKR. 3,000 per month (US\$ 32)	PKR. 966	PKR. 1,144
2	Percentage of farmers using services of Women Livestock Extension Workers (WLEWs) relative to the baseline	At least ten percent farmers using services of WLEWs.	17 percent	19 percent
3	Number of villages served by project-trained WLEWs	1,764 villages	4,500 villages	4,500 villages
4	Number of project- trained WLEWs providing services as self-employed extension workers	At least 60 percent of the trained WLEWs providing livestock services.	64 percent	64 percent
5	Number of WLEWs operating/managing project-supported milk collection points in project-assisted communities	At least 20 Milk Collection Points	16 WLEWs	16 WLEWs
6	Number of WLEWs offering feed, nutrients, and other inputs for sale to farmers	60 percent (797 WLEWs)	78 percent	78 percent
7	Percentage of project- trained WLEWs introduced to input suppliers	100 percent	100 percent	100 percent
8	Number of WLEWs trained in business practices, book- keeping, and milk collection	1,600 WLEWs	2,227 WLEWs	2,227 WLEWs

**Table 18 WLEWs Training Performance** 

Over the past months, WLEWs' income has shown a significant increase by 43 percent to PKR. 1,144. Though, it is still below the envisioned target income of PKR 3,000 but the visible boost is highly encouraging. There are certain social barriers responsible for average less income of these trained WLEWs. The Dairy Project M&E team conducted a quarterly survey in January 2014 focusing several questions on social barriers and perceptions about professional working of trained WLEWs as livestock basic health and extension providers in purely male-dominant rural setting. The responses are given in the table below. A significant number (73 percent) think that the society does not look at their work favorably. Around 24 percent face mobility restrictions that limit their capacity to reach a wider clientele. Additionally, though farmers think of WLEWs as reliable extension workers, yet they exploit them by avoiding to pay for their services. Approximately 41percent of WLEWs voiced that farmers often do not pay for their services. Thus it results in losses and demotivation for the extension workers. Another major reason for low profitability is the presence of a trained veterinary officer or assistant in their village. Around 68 percent WLEWs claimed that there is a trained VO or VA in their village.

Social Norms	Percentage of WLEWs who agree
Work is not looked at favorably in the society	73 percent
Restrictions on mobility	24 percent
Restrictions on talking to men	24 percent
Other women in their biradri also work	52 percent
Farmers decline to pay for your services	41 percent
Veterinary officer available in your village	44 percent

**Table 19 Perception of Social Barriers to WLEWs** 

### **Gender Empowerment under Dairy Project**

Besides imparting training, the project has significantly contributed to help the trained WLEWS establish themselves as self-employed extension workers. With an improved socio-economic status, these WLEWs are now generally perceived as respectable working class of society. Although, there are certain hurdles in the way of their steady progress, it is also helping the marginalized and poor families in having better access to health and education facilities.

The table below reports the findings based on our quarterly survey conducted in Jan, 2014. Despite the business challenges faced by WLEWs, Dairy Project has had a very positive impact on generating self-esteem, economic empowerment and improved confidence of this marginalized segment of society. Around 90 percent WLEWs think that despite their lower profits, they are now financially independent. Moreover, a majority (92 percent) claim that famers consider them as reliable extension workers. This is a very positive indication. More investment in the WLEW component could contribute in defying some of the stringent social barriers discussed above.

Social empowerment	Percentage of WLEWs who agree
Farmers consider them as reliable extension workers	92 percent
Consider themselves socially and financially independent	90 percent
Brother/ father and husband cooperate in business	26 percent

**Table 20 Perception of Social Empowerment** 





### **Mass Communication and Awareness Campaign**

During the reporting period July-September 2013, the Communications Department at the Dairy Project completed its Phase One of TV/Radio Campaign. The campaign consisted of a series of TV and radio spots in Urdu and regional languages (Punjabi, Seraiki, Sindhi and Pushto) to raise awareness on best dairy farming practices. The first phase of the TV and radio campaign started in May and ended on July 26.

Adjacent to this activity, the Communications Department setup a response and monitoring unit through which the project acquired a toll free number '0800-44556'. This activity was managed by leading international call center The Resource Group (TRG), where the Dairy Project's call agents fluent in four regional languages answered campaign-specific queries. An Analysis report was compiled in August, 2013, which confirmed that a total of 235 calls had been received from dairy farming communities with complete caller information recorded in the CRM and 67 districts (151 tehsils) had been reached through the campaign. Number of district reached is based on the phone calls received on the toll free number. However, the campaign is run through national TV and radio channels, which may cover the whole country.

The Communications Department also compiled and distributed its newsletter for the months of April, May and June 2013. A total of 500 newsletters were circulated amongst PMU staff, internal and external stakeholders, donor and other implementing partners.

On September 2, 2013 the Dairy Project held a consultative workshop with dairy sector stakeholders and farm managers to assess the needs for modern farm management services. Participants of the workshop included 95 commercial dairy farmers from Punjab, Vice Chairman DRDF Abdul Sattar Dogar, Dairy Project Director Jakob Moser, Senior Development Advisor USAID Punjab Sajjad Moghal and Chairman Dairy Project Steering Committee Syed Yawar Ali. This workshop was conducted to assist the Dairy Project in enhancing the scope of the upcoming farm managers' training, and further align the offered training with market needs. Recommendations and suggestions were given by commercial dairy farmers with regards to training curriculum, training duration, criteria and record keeping methods. Issues concerning dairy farming were also highlighted including inability to access markets, energy crisis/need for biogas plant and inflation amongst others.

Moreover, a sign board was designed and placed at the new bio gas plant setup by the Dairy Project in Village 569/EB, located between Burewala and Vehari, Off Multan Road. The board highlights the benefits of the biogas plant and creates awareness regarding the plants' operations in the village.

During the period July—September, 2013, the Dairy Project's website was updated. Pictures, news and highlights section as well as the content of the project's intervention were also revised to reflect the latest updates/activities.

During the reporting period October to December 2013, the Communications Department at the Dairy Project launched and completed Phase Two of its TV/Radio Campaign. Through this campaign, awareness messages on best dairy practices were disseminated to at least 88 districts and 238 tehsils. The campaign started on November 23 and lasted for a period of one month. The campaign promoted eight best practices including deworming, vaccinations,

silage making, recordkeeping, animal health and management. The commercials were aired on 10 TV channels and nine Radio channels in five different regional languages.

Adjacent to this activity, the Communications Department setup a response and monitoring unit through which the project acquired a toll free number '0800-44556'. This activity was managed by leading international call center The Resource Group (TRG), where the Dairy Project's call agents fluent in five regional languages answered campaign-specific queries. The call center activity started on November 23 and around 700 calls were received from all over Pakistan; 80 percent of these calls were from farmers.

On October 23-24, 2013, the Communications Department setup a stall and took part in panel discussions at the two-day International Livestock Nutrition Conference at the University of Veterinary and Animal Sciences. Almost 200 people visited the stall and 155 people filled out the visitors' record forms expressing interest in the project's activities. Dairy Project's banners and advert in the conference booklet were also placed.

During the reporting period, the Dairy Project also launched a bulk SMS campaign to reach out to its trained beneficiaries including farmers and Women Livestock Extension Workers (WLEWs). The campaign was designed to improve market linkages among the farming community. Through the campaign, farmers were alerted of the availability of WLEWs and AITs in their districts in providing vaccination, basic animal health care treatment, animal feed concentrate and breed improvement services, respectively. The WLEWs were also incentivized through this campaign to achieve their targets. The SMS marketing was carried out in Urdu and targeted trained farmers and WLEWs of Multan, Vehari and Kamalia zones. Three rounds of messages were sent to approximately 11,221 trained beneficiaries for this purpose.

The Dairy Project also setup a stall at the three-day Kisan Mela organized at the Expo Centre from December 29-31. The Dairy Project's stall showcased a model dairy shed to guide farmers with regards to shed design and management, along with brochures of silage making, aflatoxins and literature on project overview. The stall was visited by over 400 people including dairy farmers from rural areas across Pakistan.

The Dairy Project also exhibited a stage show to entertain and inform the audience about best dairy farming practices. The short ten minute skit performed on the first and second day of the Kisan Mela cohesively highlighted best dairy practices including animal nutrition and feeding, silage making, deworming and vaccination amongst others. Approximately 300 people were present in the audience and viewed the show.

The Dairy Project completed Phase Two of its TV/Radio Campaign highlighting best dairy practices in December 2013. Adjacent to this activity, the Communications Department setup a response and monitoring unit through which the project acquired a toll free number '0800-44556'. The activity completed on January 6, 2014 and was managed by leading international call center The Resource Group (TRG). The helpline received over 700 calls and the highest numbers of question asked were regarding breeding followed by queries and feedback on balanced nutrition and free access to water, deworming and vaccination, Feed storage (Aflatoxins) and fodder planning and preservation. The results revealed that over 70 per cent of the total calls were received from dairy farmers.

A delegation of American journalists visited the Dairy Project's Artificial Insemination training facility at Burj Attari, Sheikhupura on February 7, 2014. The aim of the visit was to assess the overall scale, scope, and impact of the U.S. assistance delivered through the trainings offered under the Dairy Project for Dairy Farmers, Artificial Insemination Technicians (AITs) and Women Livestock Extension Workers (WLEWs). During the visit, the delegation gained an insight through one-to-one interaction with Dairy Project-trained beneficiaries.

On March 2, 2014 two USG VIPs -- Anne Arnes, Deputy Director, OAPA, USAID/ Washington and Jeffery Bakken, Director USAID Provincial Mission, Lahore -- visited Sukheki Farm where they were briefed about the project's progress. During the visit, they interacted with project beneficiaries and discussed the role Dairy Projects training are playing in empowering rural communities. The two VIPs were also given a tour of the dairy shed and observed best practices including best breeds, ear tagging system, free access to water, silage making and feeding and bio-gas energy generation.

The Dairy Project setup its stall at the Dawn Sarsabz Agriculture Expo on March 13-14, 2014. The Dawn Expo is Pakistan's largest agricultural exposition and brought together participation from all business sectors involved with agriculture. The Dairy Project setup a stall at the expo with the objective of disseminating information on best dairy practices, and to create awareness about the project's various capacity building initiatives. The stall was visited by over 575 people who received briefing from master trainers and project beneficiaries along with brochures of silage making, aflatoxins and literature summarizing the project. People from all four provinces including districts of Lahore, Bahawalpur, Multan, Sahiwal, Gujrat, Sheikhupura, Kasur, Faislabad, Jang, Vehari, Sialkot, Pindi, Peshawar, Quetta, Karachi, Muzzafarabad, Rahimyar Khan and Bahawalnagar visited the stall and expressed interest in the Projects training. Out of a total of 575 visitors, 435 were farmers and 140 were from other professions.

As per USAID EGA office's request, the communication team also funded, printed and installed the backdrops for all of USAID projects which showcased at the expo. The design and construction of USAID's pavilion was also undertaken by the communications department.

A delegation of U.S. journalists visited Dairy Project's Artificial Insemination (AI) training facility at Burj Attari, Sheikhupura on April 11, 2014. The objective of the visit was to assess the overall scale, scope, and impact of the U.S. assistance delivered through the trainings offered under the Dairy Project for Dairy Farmers, Artificial Insemination Technicians (AITs) and Women Livestock Extension Workers (WLEWs). During the visit, the delegation was given walk through of the project operations, interventions and accomplishments so far. Thereafter, the journalists made a through visit of the AI training center and observed different steps involved in AI practical training, following which, the participants gained an insight through one-to-one interaction with Dairy Project-trained beneficiaries. For a list of Key events, refer to Annex. 3.

The Communications team planned to roll-out second round of street theatre shows on 12 significant dairy farming best practices in project's targeted areas including districts Multan Vehari, Muzaffargarh, Bahawalpur and Bahawalnagar. This two-week activity was designed to help raise awareness on best dairy farming practices and highlight USAID assistance for

the dairy sector. Also, the campaign would be an effective effort to help establish credibility, sustainability and improved linkages of project's trained beneficiaries among the farming community, NGOs, district administration, livestock department and input suppliers. Furthermore, the best practices highlighted through the shows would serve as a refresher for the trained beneficiaries. After completion of procurement process, the Dairy Project's Communications team started working with the selected firm and meanwhile, several deliverables including concept, script, artwork for mobile float, handouts, steamers, banners, invitation cards, 3-D stage and set designs, and recee of identified areas were achieved. However, due to certain unforeseen security concerns, the Dairy Project had to roll-back this activity, till its next phase, provided to further extension.

On May 15, 2014, Dairy Project participated in 30-minute live talk show "Aap HUM Aur Behtar Zindagi" on radio FM 101, leading radio "infotainment" network- channel in Pakistan. The purpose of this program was to highlight the assistance that the USG is extending through USAID toward policy research and analysis that will lead to effective policy making in the areas of economics and agriculture. It was an interactive, live program, which highlighted key facts and achievements on USAID's Dairy Project. Sajjad Moghal, Senior Development Specialist USAID Punjab, Mahrukh Rasheed, Manager Field Operations (Multan Zone), Dairy Project and three Dairy Project trained beneficiaries, hailing from Multan, Lodhran and Muzaffar Gargh were the key participants.

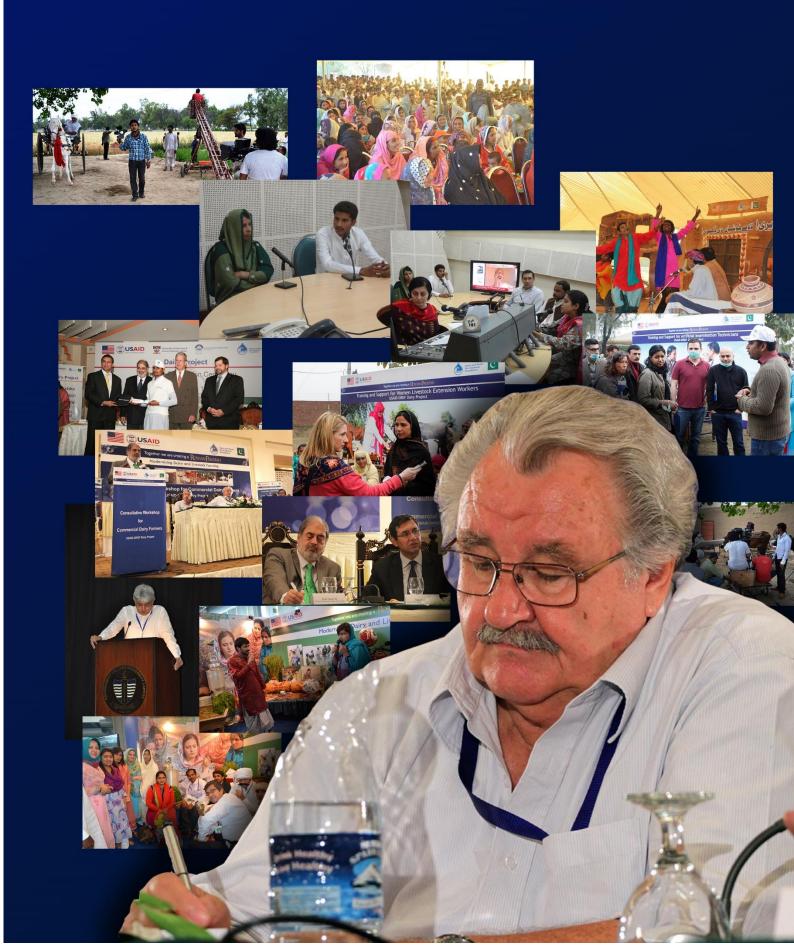
The Communications team also worked on designing and printing of appreciation certificates for best performing Women livestock Extension Workers and Artificial Insemination Technicians. This was a welcome move to recognize their outstanding performance, strong commitment and great achievements as Dairy Project trained extension services providers. Also, appreciation certificates were developed for the Dairy Project's staff to acknowledge their valuable contribution for successfully realizing the project's goals.

Dairy Project's advertisements were drafted and released in newspapers, based on requirements. These included job opening by human resource department and expression of interests by the procurement department.

In order to ensure effective project promotion and dissemination among internal and external

Stakeholders and project beneficiaries, mobilization and training material was designed and Produced, including streamers, banners, boards, modules, lesson plans (for farmers, AITs, WLEWs), flip chart, brochures, attendance and record registers, and certificates for beneficiaries. These items were sent to field as per need and requirement. For a list of complete communication deliverables, refer to Annex 4.

# Mass Communication



# **SECTION 3: ISSUES, LESSONS LEARNT AND WAY FORWARD**

Component	Challenges	Solution
Artificial Insemination Technician	In follow up, teams found AITs unable to read the straw properly i.e. bull number etc. while working in field.	One day lecture of DRDF representative was arranged in training classes to make trainees skilled to read semen straw so that they could inseminate cows with semen of farmer's choice.
	Project staff faced difficulty to control and organize the AIT group at training sites, while training the first batch of Baluchistan	Project staff consulted head person of BRSP (who referred trainees from concerned area). As per recommendation of BRSP head person (Dr.Naemat), secondgroup of trainees selected from Baluchistan will be split into groups at all AIT training centers, to have a more organized training environment.
	At the time of insemination, Farmers demanded Bull brochure from AITs to see phenotypic and genotypic traits of their selected bull.	Project team shared concern with stakeholders (semen suppliers).). DRDF developed some brochures (Urdu) for AITs in field so that they could motivate farmers to select semen of their own choice.
	Due to security concerns and extreme weather conditions, it was difficult for teams to do performance survey of AITs in Gilgit Baltistan (District Sakardu).	To resolve the concern, Dairy Project contacted stakeholder (Satpara Development Project) to share their AITs' performance in area. Later, upon recommendation of Project Director and Agreement Officer's Representative (AOR), four AITs were selected out of nine as per data shared by SDP(Satpara Development Project)
	Due to security concerns, it was challenging for team to to conduct r performance survey and certificates handing over to AITs in Baluchistan and KPK.	Dairy Project contacted stakeholder (Sarhad Rural Development Program) to resolve the concern. SRSP (Sarhad Rural Development Program) supported the project team to conduct performance survey of AITs in coordination with SRSP team members. In Baluchistan, BRSP (Baluchistan Rural Support Program) supported the project team for AIT performance survey at their regional offices in Quetta and Pishin.
	Drop out ratio of trainees in first week of training was a big challenge.	It was planned to share AIT documentary with applicant for right selection of candidates for AIT training. Strategy shared

		with zonal teams to control drop out ratio of AITs.
	LNG supply issue in Baluchistan.	Dairy Project's Provincial Coordinator surveyed area and collaborated with different NGOs and Livestock departments for LNG supply to ensure AIT's sustainable working. Followed by this, he selected one interested supplier from Quetta to ensure un interrupted supply to the AITs from Quetta and Pishin.
	Dispose of female reproductive organs (FRO) used at AIT training centers for table palpation.	To ensure environment compliance, the project team tried to find out place for dispose of female reproductive organs (FRO) after practical use. Team contacted municipal corporation of concerned area to find out/select some place for activity. Municipal corporation suggested handing over of FROs to their concerned person for disposal. Team used to dispose of organs after each 15 days due to shortage of any suitable disposal place recommended by municipal corporation of concerned area.
Women Livestock Extension worker	Mostly WLEWs changed their mobile phone numbers, triggering great difficulty for the follow up teams to invite them in monthly meetings.	Follow up Teams did individual visits to take data & new numbers of WLEWs and also advised them not to change their mobile phone numbers frequently and prior inform the respective team about any change.
	Vanda prices issues, as farmers don't know about tagged vanda.	1-Follow up team gave awareness in area about tagged and aflatoxin free vanda and demerits of local vanda 2-Project team sent different vanda samples at UVAS University of animal sciences, Lahore (UVAS) laboratory so that they could communicate farmers about usage of quality vanda.
	Some WLEWs showed hesitation to administer injections, in calculating profit and in marketing their products.	Project teams provided refresher of marketing tools where needed and also arranged farmer help camps, enabling WLEWs gain improved confidence through practical demonstration.
	Lack of proper resources for silage campaign e.g. farmer steamers, fodder booklet, silage brochures, aflatoxin brochures.	Required items were provided to silage team for smooth activity within time line.
	Due to extremely cold weather, less strength of WLEWs and farmer could	Project teams conducted meetings on small scale; small gathering & house hold visits done.

	be ensured in community meetings & Follow up meetings.	
	Late Induction of VMC (village milk collection) due to late approval of VMC kit.	Teams inducted VMCs in Multan and Vehari after resolving kit concern.
Farmer	Nursing of calf shed (one attendant was required for night duty at calf shed to report any problem in night).	Project provided resources to ensure smooth activity.
	Commercial farmers training in field.	Keeping in view inter cluster distance, the Dairy Project planned training of small groups of farmers in field. Followed by plan, training two commercial farmers groups started.
	Postponed farmers' batches from other provinces due to foggy weather.	Due to security risk/unsafe travel, the Dairy Project planned to postpone farmer training for other provinces to next batch. Farmer training was planned in clear weather keeping in view safe travel.
	Less exposure of exotic breeds.	Farmers from other provinces showed concern for exposure of exotic breed animals keeping in view climate of their areas. We planned to arrange one day visit of farmers at Nestle Sarsabz Farm to serve the purpose. One day visit to Sarsabz farm has become training part to fulfill trainees' requirement.

**Table 21 Issues and Lessons Learnt** 

### **SECTION 4: ENVIRONMENTAL COMPLIANCE**

The issues in the Dairy Project's trainings related to environment and health safety are related to adoption of best management practices, health safety measures related to liquid nitrogen gas, organs handling, and proper disposal of waste, sheaths, syringe handling, and compliance to product specifications.

An Environmental Mitigation and Monitoring Plan (EMMP) was developed listing mitigation measures for each type of training. This report presents compliance with these mitigation measures.

### **Report on Compliance with EMMP**

The findings in this report are based on training curriculum review, physical inspection of sites and surprise visits to class rooms by the environment specialist.

In order to fulfill requirements under EMMP, various guidelines were developed for safe disposal of the waste generated during trainings. Additional guidelines include health and safety measures to avoid any harm or injury to the trainees.

### **Component 1: Farmer Training**

Lesson plan of the farmer training component was checked to find out whether environment related material had been incorporated in the lesson plan. Farmers were briefed on manure handling. Teat dipping process is described to the farmers so that they could avoid the diseases occurring in animals after milking. Bio-security is also considered and so at the entrance of the farm, lime is placed to avoid the diseases at the farm through contamination from visitors' feet.

Racking is done for animal feed storage and significance of racking is described to the trainees so that mold could be avoided due to moisture from the ground surface and side walls. Moisture is one of the main causes of moldiness resulting mycotoxins in animals feed. So racking would be an efficient measure to save the animal feed from these hazards.

During the silage making shows, farmers were briefed on environmental considerations and safe handling of the equipment. Safety measures like dust mask usage, safety guard importance and maintenance of the silage machine for silage shows were taught to the trainees.

Only experts were permitted to run the silage machine. Safety guard was in place all the time whenever the silage machine was in operation. Person working on the silage machine were properly dressed with secure clothing (dangri) and safety boots.

Taking into consideration the significance of biogas plant, Dairy Project pilot a biogas plant in Vehari. Safety and environmental considerations were observed during its construction and operational phase, and mitigation measures were taken to avoid any sort of safety lapse and environmental pollution. Visits were made by the technical team and environment specialist during construction of this project to monitor the compliance. For the final inspection and handing over of this plant, project director along with the procurement manager paid visit to ensure compliance of all agreed terms and conditions regarding safety and environment before operationalization of this plant. Monitoring report was satisfactory

explaining that all necessary equipment like safety valve, pressure and temperature gauge, moisture and hydrogen sulfide scrubber etc. were duly placed.

#### **Component 2: Artificial Insemination Technicians' Training**

All AIT training sites continued imparting training on best practices and lesson plan covered best artificial insemination practices. Safe handling of liquid nitrogen had been communicated to the beneficiaries, emphasizing the significance of use of personal protective equipment (safety goggles & cryogenic gloves) while handling liquid nitrogen gas. Transportation of liquid nitrogen has been done in such a way that no one sits in the space in which liquid nitrogen cylinders are transported so that asphyxia and cold burns could be avoided. Proper storage of liquid nitrogen has also been communicated to avoid asphyxia.

All trainees wear overalls (dangri), gum boots and gloves during practical training on live animals to minimize the chances of disease transfer to human beings. During table practice, gloves, face masks and aprons were worn by the trainees invariably. Animal organs were stored in refrigerator after usage till ultimate disposal to inhibit bacterial growth.

After insemination practice on live animals, animals were washed with 0.5 percent potassium per magnate occasionally from the back at Faisalabad and Burj Attari sites, so that animals could be avoided from pathogenic bacteria.

In order to prevent the injuries, crush was used at artificial insemination sites to control the animals during live artificial insemination practice. Hands were washed with antibacterial soap after insemination practice.

Generally, sheaths and contaminated polythene gloves were kept covered, yet, in some instances lid was not placed on dustbins exposing contaminated gloves and sheaths to the environment, consequently spreading pathogenic bacteria in the environment. Even contaminated gloves were mixed with domestic waste which was not an environment friendly practice. This non-compliance was observed and field management was informed about this non-conformity, followed by that situation got improved contaminated gloves, sheaths and straws were disposed of properly in limed pit at Burj Attari and Faisalabad sites. Organs were placed in limed pit and then more layers of lime were laid before final soil covering. However, due to unavailability of land at Rawalpindi, waste material was taken away from the residential area and then dumped openly near river Sawan so that chances of disease spread and harmful impact of the organs could be minimized.

#### Component 3: Women Livestock Extension Workers' (WLEWs) Training

WLEWs' training took place at designated training centers in two districts namely, Multan and Vehari. Best basic livestock extension practices were taught to the WLEWs and health safety measures like handling of medicines and syringes were incorporated in lesson plan.

Medicines were protected from the sunlight during outdoor sessions at both sites thereby, complying with the product specifications. Moreover, expiry dates were also checked before usage of medicines at each site.

Previously, it was observed that the one syringe was used for several animals but this practice was highlighted to the management and number of syringes was increased in the master trainer's kit, hence this year a new syringe was used for each animal. Mostly, recapping of the syringe needle was avoided as it carries the risk of needle prick injuries

causing zoonotic diseases. However, restraining has not been observed quiet often in the field for treatment of animals by WLEWs. Needle cutters were available at both sites for immediate disposal of needles after injection to avoid chances of needle prick injuries to the maximum.

Medicines provided in the kit are approved from USAID on the basis of active ingredients. After usage, syringes are disposed of into the land along with their encapsulation, hence complying with the guidelines. Syringes were placed into safety box after training session was over. Safety box was sealed prior to the disposal into the land.

#### **Conclusion:**

By and large, the Dairy Project is observing compliance with EMMP, thus, having d minimal environmental adverse impact. However, there were a few instances of non-compliance. In such cases, necessary directions were given to operations department and mitigation measures were taken to resolve the issues. As a whole, the project activities had a very positive impact on the community with marginal cost to environment. Further, biogas intervention helped towards improvement in the local environment by treating the cow dung waste and even the air pollution is also reduced.

#### ANNEX. 1: OVERVIEW OF TRAINING COMPONENTS

#### **Training and Support for Dairy Farmers**

The primary objective of providing training and support to dairy farmers is to improve prevalent dairy farming practices for improved livestock productivity and increased incomes of rural households assisted by the project. The Dairy Project also strives to increase mass awareness to create a demand for extension services of WLEW and AIT. This will result in better breeds and increased milk production. Through these trainings, the Dairy Project will achieve its primary goal of creating incomes and employment opportunities for rural Pakistanis associated with the dairy sector, resulting in economic growth for the country.

#### **Training Methodology, Curriculum and Follow-up Support:**

These trainings cover topics such as improved feeding and animal nutrition, basic level animal health management, feeding, farm equipment management, shed management, and the importance of improved breeds. One-month advanced trainings for farm managers include separate components on basic bookkeeping and business skills. Knowledge of the basic business know-how adds to the skills of farm managers. This is how, all trained farmers will have a better understanding of the milk value chain and how to profitably create linkages within it. The Project has an ambitious plan to train 9,000 farmers and 100 farm managers over a period of three years with the following specific targets to achieve:

- A) Two-day training for 5000 traditional farmers
- B) Four-day training for 3700 for progressive farmers
- c) One month training for 300 commercial farmers
- d) Training of 100 farm managers

#### **Training Methodology and Locations**

The Dairy Project started farmers' trainings at two model trainings and demonstration farms of Nestle located at Sukheki, Pindi Bhattian, District Hafiz Abad and Renala Khurd, district Okara. Customized training modules were developed for the training purpose.

However, keeping in view the cost and time factor involved in boarding and lodging of farmers at these model farms, the project, therefore, decided to arrange two more model farms at Khanewal, Kamalia, and Multan. Owned by private farmers, these farms are equipped with necessary infrastructure and facilities suitable for conducting training sessions for farmers, thus reducing transportation costs and enhancing training effectiveness.

#### **Training Curriculum**

Training contents of two-day farmer training session include introduction to livestock breeds, cross breeding, feeding of dairy animals, yearly fodder planning, silage and hay making, calf rearing, health (FMD and HS, Vaccination), internal and external parasite control, Mastitis and its control, artificial insemination and its importance for breed improvement, milk and farm hygiene, sire selection criteria, body scoring, Estrus synchronization, heat detection at farm level, shed design, Oxytocin and dilemma of its frequent use, and , record keeping. Training contents of four days farmer training is more or less the same with more details.

Dairy Project provided training certificates and initial support kit to all these trained farmers at completion of the training. The kit includes teat cup; dip solution; drenching syringe; dewormer; feeding nipple; notepad; and bag. In the second quarter of 2012, training contents of one-month training of dairy farmers and Farm Managers were prepared and submitted for review by University of Veterinary and Animal Science Lahore. After approval, a training manual for one-month training was prepared.

#### **Follow-up Support**

The team also provided technical support to trained farmers at their farms on need base e.g.in case of shed designing and other technicalities regarding dairy farming.

#### **B-Training and Support for Artificial Insemination Technicians (AITs)**

#### Training Methodology, Curriculum and Follow-up Support

Poor genetics is a major reason for low productivity per dairy animal. In order to improve the genetic potential of existing breeds, there is an immense need to introduce the trend of cross breeding through artificial insemination techniques for better milk production and profitable dairy farming in Pakistan. The Dairy Project's AI trainings will significantly empower unemployed youths as entrepreneurs offering breeding services to dairy farmers, who are in turn acquiring access to better quality semen supplies ensuring better breeding of animals. The overall aim is to ensure that through better breeding, farmers are able to increase their milk production and incomes. Income opportunities for both farmers and AI technicians are being created. The Dairy Project aims to train a total of 2000 individuals as AITs with 100 individuals each from Khyber Pakhtunkhwa, Sindh and Baluchistan provinces. Later on, target of Baluchistan was revised as 70 instead of 100.

#### **Training Methodology**

AITs are given five-week training with additional two-month follow up support provided by the project team. Trainings include a mix of theory, demonstration and practical exercises related to insemination and the safe handling and maintenance of insemination guns, liquid nitrogen cylinders for transporting semen, and other AI supplies and equipment. Classroom trainings take place at AITs Centers (established by the Dairy Project) and the Government of Punjab's Vocational Training Institutes (PVTC). Potential candidates are selected through a careful procedure and sent to AIT training centers in Burj Attari, Rawalpindi and Faisalabad where they are provided with major training facilities, accommodation, transportation, and refreshment. The project provides each AIT with initial support kit (containing Nitrogen Cylinders, Semen doses, basic AI related equipment) and a motorbike (after AIT fulfills performance criteria-See heading below titled "Motorbike distribution").

#### **Training Curriculum**

Training comprises of a mix of theory and practical exercises related to artificial insemination and the safe handling and maintenance of the equipment. The theory contains knowledge about the history of AI along with its advantages and disadvantages, anatomy and functions of female reproductive system, estrus cycle, heat detection, artificial insemination, fertilization, factors affecting the conception rate, methods of pregnancy diagnosis, tagging and recoding of animals. The theory is applied in the practical portion done at animal farms, slaughter houses and open animal markets. For the practical component, slaughter house training in particular, includes the post slaughter examination of reproductive organs. Dairy Project's AI team at Burj Attari has also made a dummy cow

for AI training. A steel frame was made by master trainers for the practice of students on the pelvic bone. Besides training in AI techniques, the project realizes the need to teach the trained AITs in basic bookkeeping and business skills which will aide them in becoming successful businessmen. The Dairy Project also helps them build linkages with input suppliers and other trustworthy vendors playing the role of middleman. Two-day road safety training by Atlas Honda motors is also a part of AIT training.

#### **Follow up and Support Services**

Upon successful completion of the training course, these AITs are provided with follow-up assistance to establish themselves as small scale entrepreneurs. A certification and graduation ceremony is held for each batch of these AITs wherein all participants are provided with a support kit to jump-start their businesses and hence improve their incomes. The distribution of kits plays a vital supportive role in launching the careers of ordinary and unemployed individuals as professionally trained AITs. The kit includes essential equipment such as AI cylinder, liquid nitrogen cylinders, insemination guns, semen straws, fifty semen doses, gum boots/sleeves and an AIT record register.

Dairy Project's follow-up teams conduct follow-up meetings regularly. Meetings with a batch are conducted on weekly basis in the first month of completion of the training. After first month, frequency of such meeting changes into monthly basis and weekly meetings are now conducted with the latest batch of AITs. The purpose of these meetings is to resolve issues of AITs improve their technical skills and help them strengthen their market linkages. The issues related to supply of quality semen to AITs are also discussed and resolved in the follow up meetings. During the induction meetings, AITs are also formally introduced to communities to market their Artificial Insemination services for breed improvement.

#### **Motorbike Distribution**

To further facilitate these AITs, the Dairy Project also awards motorbikes to high achiever AITs showing excellent performance based on certain criteria:

- **a) Number of Inseminations:** Minimum 30 inseminations are required in the first 90 days after completion of the training, which was revised later in August 2013 as minimum 50 inseminations required in 90 days, starting after 15 days of receiving of kit.
- **b)** Conception Rate: Minimum conception rate of 40 percent is required. For checking this, a palpation test is conducted on five randomly selected animals which have been inseminated 60 days before by the trained AIT. Three animals must be pregnant as per the criteria. Later on, it was revised in August 2013 as minimum40 percent conception rate required. To check this, a palpation test is conducted on five randomly selected animals out of which 2 must be pregnant.

#### **C-Training and Support for Women Livestock Extension Workers (WLEWs)**

#### Training methodology, Curriculum and Follow up Support

In Pakistan, more than 80 percent of rural women are involved in livestock management primarily in the field of feeding, watering, milking and medication. The females involved in livestock farming are poorly educated but they have the potential to learn and establish themselves as entrepreneurs and generate income. Due to lack of guidance, training, and

access to markets and poor resources, they are unable to learn and adopt such incomegenerating activities by their own. Dairy project, through its training program for Women Livestock Extension Workers (WLEWs), is filling the void in Pakistan's dairy sector.

The Dairy Project will train 5,000 WLEWs by offering them one-month long training course. The curriculum for this training is updated in collaboration with the University of Veterinary and Animal Sciences (UVAS), Lahore. The training contents include basic animal health management, basic preventive animal health measure, identification of the most common diseases, immunization and basic treatment, animal nutrition and hygiene, and water management. Extension Worker trainings are conducted in village clusters (A cluster comprises of 10-13 villages), so that women can easily attend the training arranged adjacent to r their homes. A training camp is also set up on temporary basis at each site. The program arranges for transport to and from the site as well. The master trainers are women veterinary graduates. The extension workers are also trained in feed supply and milk collection to give them the expertise to further grow their businesses. WLEWs are also being given bookkeeping and business training as well as linkages to service (including financial) and input suppliers along the dairy value chain. Upon completion of the course, WLEWs selected for animal nursing are given a veterinary kit, while WLEWs doing other livestock businesses are supported by a stock of animal feed or milk collection kit. The program also provides workers with basic mobile phones to enable easy communication with the medicine and feed suppliers. The project has experienced a considerable increase in the demand for of livestock extension services provided by WLEWs to the farming community at their doorstep for improving livestock productivity and enhancing incomes of rural families. This is providing project trained WLEWs with income boosts and better livelihoods. Consequently, this ensures increased milk production and incomes in the dairy sector.

#### **Training Curriculum of WLEWs**

The training duration of the course is spread over one month period. All WLEWs, at the end of this one-month training, are tested through written as well as viva tests by academic staff of UVAS. The topics of WLEW training course consists of basics in animal health management, preventive animal health measure, identification of the most common diseases, immunization and treatment, animal nutrition and hygiene and livestock management. These extension workers are also provided trainings in feed supply and milk collection to give them additional knowledge in business management for their growth as entrepreneurs. Training modules include restraining, health, disease, parasites, infectious diseases of cattle and buffalo, infectious diseases of sheep and goat, non-infectious diseases, reproduction techniques, vaccination, calf care, milk, dairy farming, sheep & goat farming, poultry, medicines. Practical performance includes restraining, S/C and I/M injections, fat percentage and specific gravity of milk, deworming, bolus making, external parasite treatment, bandage, mastitis management. Also, WLEWs are equipped with basic bookkeeping expertise as well as facilitating their linkages with financial services and input suppliers along the dairy value chain.

Besides providing training as WLEWs, master trainers also conduct farmer help camps amidst the training sessions in their respective villages to reinforce their technical skills and boost their morale and confidence with regards to dealings with the surrounding community. Normally, the cases dealt at such training camps are related to deworming, diarrhea, mineral deficiency and ingestion etc. In the next stage, trained WLEWs visit dairy

farms established as training centers where they are provided knowledge about silage making, animal care, shed design, milk test, and so on. Dairy Project also arranged visits of WLEWs to the civil veterinary hospitals to link them with the veterinary officers and assistants. It is expected that such visits will strengthen market linkages of WLEWs which will prove to be fruitful in future. After successfully completing the training course, WLEWs are formally inducted in their respective villages through an induction meeting where g master trainers formally inform the community about the technical skills, WLEWs have gained during certified training and the type of services that they are capable of providing to the farmers.

#### Follow up and Support Services provided by Dairy Project

Each qualified WLEW is awarded with a support kit consisting basic veterinary medicines and concentrated feed. Initially, the WLEWs are provided with follow up support twice in first month after training, followed by this, this meeting is conducted on monthly basis in which master trainers support them to resolve their issues and to strengthen market linkages for their smooth working.

#### Market Linkages and Support Services to Farmers, WLEWs, and AITs

Follow up teams have taken various initiatives to develop the linkages between beneficiaries and the stakeholders like Khushhali bank, Zarai Taraqiati Bank, BARC Foundation, Kashf Foundation, NRSP, Akhuwat Foundation, Chenab Foundation, Pakistan Domestic Bio Gas Program (PDBP), Engro, Nestle' Pakistan, Haleeb and government livestock departments.

**Dairy Point** is one of the positive initiatives of Dairy Project. Dairy Point is a center where at least three different types of beneficiaries will provide their services to allied villages on larger scale with the help of different marketing companies. Its purpose is to provide a sustainable link to WLEWs and AITs so that they can purchase products (Vanda and medicine, semen doses, liquid nitrogen gas) at right price and places with great convenience. WLEW and AIT will play major roles in running modern dairy points. Four dairy points in Vehari, 15 in Multan and 7 in Hasil Pur have been established and working successfully in their related areas.

**Further, Farmer Days** have been arranged by the project to ensure sustainability of WLEWs can easily reach out the stakeholders for improved market linkages.

#### **Support to Project Beneficiaries by Follow up Teams:**

The Dairy Project teams have provided follow up support to project beneficiaries through weekly meetings, monthly meetings, individual follow up at door step, inter-beneficiaries meetings, farmer help camps and cluster formation. WLEWs were grouped in clusters, comprising of 20-25 WLEWs (in 10-12 villages) with an elected cluster head. By cluster formation, WLEWs place order in bulk through cluster head. The cluster strategy is being extended to incorporate project -farmers and AITs into the clusters. It strengthens beneficiary's linkages, increases their negotiation power to deal with suppliers and provide easy access to suppliers. A total of 148 clusters were established in Multan, Vehari and Kamalia zones. In year three, 50 clusters were established in Kamalia and Vehari.

Furthermore, cluster heads were employed by medicines and vanda supplier companies on salary and commission basis. About 15 cluster heads from Multan zone have been employed by medicine company (Trust Pharma). Organon feed company distributed their discount

cards with the help of follow up teams in Kamalia. These cards ensure a handsome profit margin for WLEWs. Nestle addressed aflatoxin issue and also shared facility of Nestle one stop shop with WLEWs through which WLEWs provided services to dairy farmers. Follow-up team established a pilot initiative of monthly saving system (known as "committee system" in Pakistan) to encourage savings and promote inter-beneficiary linkages in some clusters, About 12 clusters in Vehari and 6 in Kamalia have adopted the committee system up till now.

Also, a help line service system is established in zones through which beneficiaries can easily contact with Dairy Project team to resolve their concerns Team resolved the concerns and supported them in their concerned product supply.

#### ANNEX.2: EVALUATION METHODOLOGY

The reported performance statistics are computed as combined averages of previous quarterly statistics. To get a better evaluation simple Combined Averages and Weighted Averages (Weighted Moving Averages) are computed. Moving averages tend to factor out any seasonality effects which adds up in the total impact of the project and weighted averages are also computed to give more weightage to the recent quarter figures. Time period taken to carry out these averages is of three quarters, stats from the last three QPRs were averaged to get a fair average impact of the project. The formula used to calculate Weighted Average is given below.

$$Weighted\ Average = \frac{nx_m + (n-1)x_{m-1} + \cdots 2x_{m-n+2} + x_{m-n+1}}{n + (n-1) + (n-2) + \cdots + 2 + 1}$$

Where  $x_m$  is the value in nth quarter, while  $x_{m-n+1}$  is the value in first quarter.

The methodologies used for evaluation surveys in the past are as follow.

#### **Survey Methodology:**

The primary objective of the evaluation activity is to get a reliable indicator of the project's performance in three components vis-à-vis farmer, AIT and WLEW training. Given logistical and security constraints, it is not possible to cover all districts from where the Dairy Project has trained beneficiaries. Therefore, for sampling purposes, a random sample is picked from approximately 85% of the trained beneficiaries in Punjab.

For sampling purposes proper statistical methods are adopted to determine the sample size for the survey. Confidence level of 90 percent and significance level of five percent is kept to gain more accurate insights to the impact of the project. The evaluation sampling is handicapped by the unavailability of baseline data, especially for the farmer component. Hence, an evaluation design is adopted that allows us to get both baseline and end line values simultaneously.

Survey tools are designed in accordance with the projects key outcome indicators illustrated in Monitoring and Evaluation (M&E) Activity Plan. Keeping in view the experiences from the past quarterly surveys, survey tools are refined and necessary questionnaire added to gather more insights into the impact of trainings provided by Dairy Project. Enumerators' training is an essential part of quality data fetching. A complete training session is organized in Multan for all the enumerators conducting the survey. Enumerators are introduced to the probing methods and all research instruments are briefed one by one. After complete orientation on probing techniques and survey instruments, mock sessions are held which are observed by trainers. Later trainers provide their feedback on mock sessions one by one to each participant for improvement.

After the questionnaires are finalized and well briefed to enumerators, a pilot is carried out in Multan zone. This not only refines the tool even further, but also helps the enumerators to get first-hand experience. Two such pilots are carried out before final implementation. After successful pilot testing and planning, the survey is carried out by four main working zones of the project which are namely Multan, Vehari, Kamalia and Hasilpur.

To ensure the quality of data, the project's Monitoring and Evaluation department (M & E) has a complete monitoring plan which is implemented with the help of M & E zonal staff. M & E officers make random checks on the interview sessions carried out by the enumerators to ensure accuracy of the data collected. Complete data flow procedures are documented with all the data quality and verification checks explicitly mentioned. After receiving the questionnaires from the enumerators and before it is entered in to the database, the data is verified by Monitoring and Evaluation Officer and Assistant Zonal Manager at two different stages to ensure the quality of data. Even though the data is received after rigorous checking, the analyst further cleans it and checks for errors and outliers to have a refined data set for analysis.

#### **ANNEX.3: KEY EVENTS**

Sr. No	Date	Event	Location	Media Coverage/Pr ess Release	Remarks
1.	September 2, 2013	Consultative workshop for commercial dairy farmers	Pearl Continental Hotel, Lahore	Press Release  - USAID  Supports  Consultative  Workshop for  Improved  Dairy Farm  Management  in Punjab	The purpose of this consultative workshop was to assess the needs of Punjab-based commercial dairy farmers, seeking assistance of trained farm managers for better farm management and to help the Dairy Project enhance the scope of its upcoming farm managers' trainings, and further align it with market needs.
2.	October 31- December 12, 2013	Dairy Project's SMS Campaign	Multan, Khanewal, Lodhran, Muzaffargarh, Bahawalpur, Bahawalnagar, Rahim Yar Khan, Toba Tek Singh, Jhang, Sahiwal, Vehari	N/A	The basic objective of the SMS Campaign was to send bulk SMS, to help ensure an effective outreach to Dairy Project's trained beneficiaries including Dairy Farmers, Women Livestock Extension Workers (WLEWs) and Artificial Insemination Technicians (AITs), to establish their credibility, sustainability and improved linkages among the farming community, for increased milk yield, income boost and improved livelihoods. The SMS marketing was carried out in Urdu and language, focusing the prescribed four messages given by the project team.
3.	November 23- December 22, 2013	USAID Dairy Project's TV and Radio Spots Campaign	Across Pakistan	N/A	As part of its mass awareness campaign, the Dairy Project completed phase two of its radio and television awareness campaign on modern dairy farming practices, reaching out at least 88 districts and 239 tehsils. Through this campaign, commercials were aired on 10 TV channels and 9 Radio channels in 5 different regional languages (Punjabi, Sindhi, Pashto, Seraiki, and Urdu).
4.	December 29- 31, 2013	Kisan Mela	Expo center, Lahore	N/A	The objective of the Kisan Mela was to encourage growth in the agro-sector by sharing best practices, latest research findings and create market linkages between different stakeholders in the agricultural industry. The Dairy Project's stall showcased a model dairy shed to guide farmers with regards to shed design and management, along with brochures of silage making, aflatoxins and literature on the overview of the project. The stall was visited by over 400 people including dairy farmers from rural areas across Pakistan.

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5.	February 7, 2014	Visit of U.S based Journalists	Punjab Vocational Training Council, Burj Attari	N/A	A group of U.Sbased Journalists and USAID officials visited the AIT site and were briefed about the projects activities and achievements
6.	March 2, 2014	Visit of Anne Arnes – Deputy Director, OAPA, USAID/Washing ton	Visit of Anne Arnes – Deputy Director, OAPA, USAID/Washingt on	N/A	Anne Arnes – Deputy Director, OAPA, USAID/Washington, Jeffrey N. Bakken – Director USAID Provincial Mission, Lahore, Asad Ullah Khan, Agriculture Specialist, USAID/Punjab, Ms. Arshia Bano, DOC Specialist, USAID Lahore and project beneficiaries and staff participated in this visit.
7.	March 13-14 2014	Dawn Sarsabz Agri Expo 2014	Expo Center Lahore	N/A	The Dawn Sarsabz Agri Expo is Pakistan's largest agricultural exposition and brought together participation from all business sectors directly or indirectly involved with agriculture. The Dairy Project setup a stall at the expo with the objective of disseminating best dairy practices, and to create awareness about the projects various capacity building initiatives. Visitors received briefing about the project from master trainers and project-trained beneficiaries along with brochures of silage making, Aflatoxins and literature on the overview of the project.
8.	April 11, 2014	U.S. journalists visited to Dairy Project's artificial insemination (AI) training facility	Burj Attari, Sheikhupura	N/A	The objective of the visit was to assess the overall scale, scope, and impact of the U.S. assistance delivered through the trainings offered under the Dairy Project for Dairy Farmers, Artificial Insemination Technicians (AITs) and Women Livestock Extension Workers (WLEWs).
9.	May 15, 2014	Dairy Project Live on FM 101	Pakistan Broadcasting Corporation, Islamabad	N/A	Dairy Project participated in 30-minute live talk show "Aap Hum Aur Behtar Zindagi" on radio FM 101, leading radio "infotainment" network- channel in Pakistan. The purpose of this program was to highlight the assistance that the USG is extending through USAID toward policy research and analysis that will lead to effective policy making in the areas of economics and agriculture.

**Table 22 Key Visits and Communication Events** 

Date	Event	Location	Remarks
July 3, 2013 July 23, 2013	Motorbike Distribution for AITs	Hasilpur	AITs and Project team attended the event.
August 29 , 2013 August 31 , 2013	Graduation/Ina ugural Ceremony of 12 <sup>th</sup> and 13 <sup>th</sup> batch WLEW	Shahjahan Hotel, Multan Marry-Inn hotel Vehari	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.
September 5 , 2013	Motorbike Distribution for AITs	Multan	AITs and Project team attended the event.
September 18, 2013 September 19, 2013	Graduation/Ina ugural Ceremony of 14 <sup>th</sup> and 15 <sup>th</sup> batch WLEW	Marry-Inn hotel Vehari. Shahjahan Hotel, Multan	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.
October 8, 2013 October 9, 2013	Graduation/Ina ugural Ceremony of 15 <sup>th</sup> and 16 <sup>th</sup> batch WLEW	Shahjahan Hotel, Multan, Marry-Inn hotel Vehari	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.
October 10 , 2013	WLEW Certification ceremony of 15th batch	Millan Marriage Hall, Hasil pur	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.
November 28, 2013	Graduation/Ina ugural Ceremony of 16 <sup>th</sup> and 17 <sup>th</sup> batch WLEW	Marry-Inn hotel Vehari, Millan Marriage Hasil pur	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.
December 5, 2013	Motorbike Distribution for AITs	Hasil Pur	AITs and Project team attended the event.
January 9, 2014	Motorbike Distribution for AITs	Hasilpur	AITs and Project team attended the event.
January 21, 2014	Graduation/Ina ugural Ceremony of 17 <sup>th</sup> , 18 <sup>th</sup> and 19 <sup>th</sup> batch WLEW	Shahjahan Hotel, Multan. Millan marriage Hall, Hasilpur	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.
February 18, 2014	Graduation/Ina ugural Ceremony of 18 <sup>th</sup> and 20 <sup>th</sup> batch WLEW	Shahjahan Hotel, Multan	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.
February 21, 2014	Motor Bike Distribution for AITs from other provinces	Rahimyar Khan	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.

February 25, 2014	Graduation/Ina ugural Ceremony of 19 <sup>th</sup> and 20 <sup>th</sup>	Millan marriage Hall, Hasilpur	Representatives from government administration, NGOs, Livestock Department, dairy and pharmaceutical companies, rural community and project management participated in this ceremony.
March 11, 2014 March 20, 2014	batch WLEW  Motor Bike Distribution Phase 16 & 17	Hasilpur, Raheem Yar Khan	AITs and project team attended the phase 16 ceremony.  Phase 17 ceremony was attended by representatives from government administration, NGOs, livestock department, dairy and pharmaceutical companies and rural community participated in this ceremony.
April 23, 2014	Motor Bike Distribution for AITs from other provinces	Joy Land Hotel, Vehari	Representatives from government administration, NGOs, livestock department, dairy and pharmaceutical companies and rural community participated in this ceremony.
April 29, 2014	Graduation Ceremony of 20th batch of WLEWs	Millan Marriage Hall, Hasil Pur	Representatives from government administration, NGOs, livestock department, dairy and pharmaceutical companies and rural community participated in this ceremony.
May 17, 2014, May 28, 2014, June 11, 2014	Motor Bike Distribution for AITs from other provinces	Raheem Yar Khan, Abbotabad, Jhang (Rajhana)	Representatives from government administration, NGOs, livestock department, dairy and pharmaceutical companies and rural community participated in this ceremony.

**Table 23 Key Operational Events** 

#### **ANNEX. 4: COMMUNICATION PRODUCTS DEVELOPED**

Title	Component	Media Type	Release Date	Language
Handbills (WLEW)	WLEW	Promotional Material for Beneficiaries	July 1, Oct 7, 2013	Urdu
AIT Display Boards	AIT	Display Board	July 4, 2013	Urdu
WLEW Record Register	WLEW	Record Register	July 4, 2013	Urdu
WLEW Banners for Community Mobilization	WLEW	Flex Banners	July 8, 2013	Urdu
Dairy Farmers Banners for Community Mobilization	Dairy Farmers	Flex Banners	July 8, 2013	Urdu
Dairy Project Portal- Volume 2, Issue 2	AIT, WLEW, Dairy Farmers	Newsletter	July 11, 2013	English
WLEW Brochure	WLEW	Brochure	July 15, Nov 21, 2013	Urdu
Dairy Farmers Brochure	Dairy Farmers	Brochure	July 15, Nov 21, 2013	Urdu
Project Brochure-Naveed- e-Subh	AIT, WLEW, Dairy Farmers	Brochure	July 15, Nov 21, 2013	Urdu
AIT Certificates	AIT	Certificate	July 20, Aug 22, Oct 9, 2013	English
AIT Brochure	AIT	Brochure	July 22, 2013	Urdu
Biogas Board	Dairy Project Biogas Plant-Pilot Initiative	Outdoor Branding Board	July 23, 2013	Urdu
AIT Record Register	AIT	Record Register	July 24 2013	Urdu
Handbills (AIT)	AIT	Promotional Material for Beneficiaries	July 25, 2013	Urdu
Environment Training Booklets	AIT, WLEW, Dairy Farmers	Booklet	July 26, 2013	Urdu
AIT Steamers for Classroom	AIT	Flex steamers	August 1, 2013	Urdu
Staff Business and ID Cards	Dairy Project's PMU and Field Staff	Cards	August 15, 2012	English
Dairy Farmer Steamers for Classroom	Dairy Farmers	Flex steamers	August 28, 2013	Urdu
WLEW Steamers for Classroom	WLEW	Flex steamers	August 28, 2013	Urdu
Event Backdrop, Podium, Steamers for Rolling Stands for Consultative Workshop for Commercial Dairy Farmers	Dairy Farmers	Flex Skins	September 2, 2013	English
USAID Supports Consultative Workshop for Improved Dairy Farm Management in Punjab	Dairy Farmers	Event Briefer/Press Release	September 2, 2013	English/Ur du
Event Backdrop, Podium Skin for Certificate Distribution Ceremony for WLEWs	WLEW	Flex Skins	September 5, 2013	English
Display Boards for WLEW	WLEW	Display Board	September 20, November 28, 2013	Urdu
Record Registers for WLEW	WLEW	Record Register	September 20, 2013	Urdu
Project Branded Envelopes	Dairy Project	Stationery Items	September 25, 2013	English
Flip Charts	WLEW	Flip Charts	October 1, 2013	Urdu

Event Backdrop, Banners, Steamers for Rolling Stands for International Livestock Nutrition Conference	Dairy Project	Flex Skins	October 23-24, 2013	English
Silage Brochure	Dairy Farmers	Brochure	October 20, 2013	Urdu
Dairy Project's SMS Campaign	(WLEW, Dairy Farmers)	SMS	October 31-Dec 12, 2013	Urdu
USAID Dairy Project's TV and Radio Spots Campaign	AIT, WLEW, Dairy Farmers	TV and Radio Spots	October-November, 2013	Urdu/Punj abi/Sindhi/ Seraiki/Pus hto
Certificates for Four Days Training for Dairy Farmers	Dairy Farmers	Certificate	November 25, 2013	English
Dairy Guide for Farm Managers	Dairy Farmers	Training Module	November 29, 2013	Urdu
Record Registers for Dairy Farmers	Dairy Farmers	Record Register	November 29, 2013	Urdu
Welcome Banners	AIT, WLEW, Dairy Farmers	Flex	December 17, 2013	Urdu
Silage Technicians Certificates	Dairy Farmers	Certificate	December 18, 2013	English
Project Branded Key Chains	Dairy Project	Giveaway	December 20, 2013	English
Afflatoxin Brochure	Dairy Farmers, WLEW,	Brochure	December 23, 2013	Urdu
Event Backdrop, Banners, Steamers for Rolling Stands, Vinyl for Fascia and Counters for Kisan Mela	Dairy Project	Flex Skins	December 29-31, 2013	English
Dairy Project Diary	AIT, WLEW, Dairy Farmers	Diary	January 10, 2014	English
Dairy Project Wall Calendar	AIT, WLEW, Dairy Farmers	Wall Calendar	January 10, 2013	English
Handbills (AIT)	AIT	Promotional Material for Beneficiaries	January 1, 2014	Urdu
AIT Record Register	AIT	Record Register	January 3, 2014	Urdu
AIT Certificates	AIT	Certificate	January 7, 20, Feb 25, April 4, May 5, 2014	English
WLEW Banners for Community Mobilization	WLEW	Flex Banners	January 21, 2014	Urdu
Dairy Farmers' Banners for Community Mobilization	Dairy Farmers	Flex Banners	January 21, 2014	Urdu
Project Branded Caps	Dairy Project	Project Staff' s Promotional Caps	January 23, 2014	English
Welcome Banners	AIT, WLEW, Dairy Farmers	Flex Banners	January 29, 2014	Urdu
Training Module for AIT Certificates	AIT	Training Module	January 30, 2014	Urdu
Charajat Booklet	Dairy Farmers	Booklet	February 4, 2014	Urdu
Event Backdrops, Banner, Steamers for Rolling Stands, Flex Skins for Classroom Boards, Vinyl	AIT, WLEW, Dairy Farmers	Flex	February 6, 2014	English

for Counters for U.S. Delegation's Visit				
Project Brochure-Naveed- e-Subho	AIT, WLEW, Dairy Farmers	Brochure	March 11, 2014	Urdu
Project Factsheet	AIT, WLEW, Dairy Farmers	Factsheet	March 11, 2014	English
Color, quarter page print ads in Special report published in Dawn- Dairy Project stall at Dawn Agri Expo held at Expo Center Lahore	AIT, WLEW, Dairy Farmers	Dairy Project Stall at Dawn Agri Expo	March 13-14 2014	English
Event Backdrops, Vinyl for Counters and Fascia Pavilion Dawn Agri Expo	AIT, WLEW, Dairy Farmers	Dairy Project Stall at Dawn Agri Expo	March 13-14 2014	English
Staff Business and ID Cards	Dairy Project	Cards	April 11, 2014	English
Dairy Project Live on FM 101	AIT, WLEW, Dairy Farmers	Radio	May 15, 2014	Urdu
Appreciation Certificates for Trained Beneficiaries	AIT, WLEW	Certificates	May 26, 2014	English
Certificate for Commercial Dairy Farmers	Dairy Farmers	Certificates	May 22, 2014	English
Appreciation Certificates for Dairy Project Staff	Dairy Project	Certificates	June 23, 2014	English

**Table 24 Communication Products Developed** 

Note: Where applicable media tone has been positive for all the products developed by DRDF.

### **ANNEX 5: SUMMARY OF TRAININGS CONDUCTED**

	Farmers		AITs	WLEWs
Month	I-month	4-days		
July,2013	26	316	103	237
August,2013	24	241	-	219
September, 2013	25	290	103	221
October, 2013	26	193	111	-
November,2013	-	205	57	274
December, 2013	15	238	83	381
January, 2014	38	23	65	397
February, 2014	13		85	357
March,2014	15	105	108	141
April,2014	-	123	-	-
May,2014	-	47	-	-
Total Trained	182	1,781	715	2,227

**Table 25 Farmers Training Summary** 

## **ANNEX. 6: SUCCESS STORIES**



## Achieving Economic Stability

# Dairy Project trains artificial insemination technicians in breed improvement



Photo by USAID-DRDF Dairy Project

"After becoming an AIT, I achieved better economic and social position. I am very grateful to the Dairy Project which blessed me with this opportunity."

Ali Muhammad

Dairy Project trained AIT from Toba Tek Singh Artificial Insemination Technician Ali Muhammad s/o Khushi Muhammad is a resident of  $312/_{GB}$ , Tehsil Shorkot, District Toba Tek Singh. He lives with his parents and five children and being the head of the household his financial disposition was always a concern for him. He often did small plumbing jobs and electrical work, but did not have a steady source of income which he could consistently rely on.

Ali Muhammad heard about the Dairy Project's Artificial Insemination Technicians training through the *Numberdar* of the village and attended a community meeting hosted by them. Through this meeting he learnt about the Artificial Insemination Technicians training for unemployed, educated rural men and upon consultation with his family and the Numberdar, decided to apply for it.

Through the training he learnt about practical exercises such as safe handling and maintenance of insemination guns, liquid nitrogen cylinders as well as gained theoretical knowledge. After getting hands on training from the Dairy Project he started his business and got a trust worthy status in the community.

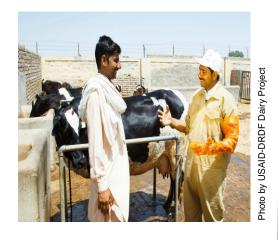
Now Ali Muhummad is able to bear all the household expenses including education for his children. His average monthly profit from providing Al services is nearly Rs18,300. During the period August to October 2013 Ali made a profit and has now established a clinic at *Mehar Ali Chok*, Shorkot city. He is delighted to have received the training and to be able to contribute to the burgeoning dairy sector.

"Before becoming an AIT, I was depressed about my economic condition which was also affecting my social status in the community but after becoming an AIT, I achieved better economic and social position. I am very grateful to the Dairy Project which blessed me with this opportunity, and I pray that Allah may run the Dairy Project successfully which helps the poor people" remarked a heartened Ali Muhummad.



## **Breaking Free From Poverty**

Dairy Projects artificial insemination technicians training lifts youth out of poverty



Hakim Ali explain the insemination process to a client

"Thanks to the Dairy Project training I have improved my income and additionally I have gained respect in my community for my services."

Hakim Ali Watoo, Artificial Insemination Technician from Kot Sadaat, District Vehari. Hakim Ali Watoo is a resident of Kot Saadat, Teshil and District Vehari. He is 31 years old and after passing his matriculation exams he had to drop out of higher education as his parents needed him to earn a living for the family. However, Hakim was unable to find a good job and consequently decided to become a street hawker who sold fruit to his community. He earned a profit of Rs 1,500 a month through this business which was insufficient for him to feed four dependents. Desperate to improve his family's economic status, Hakim Ali constantly looked for other opportunities that could increase his income.

The Dairy Project's Social Mobilization team visited his village and informed the religious leader of the community about the trainings who made announcements in the mosque to create awareness of the Projects training. Hakim immediately signed up for the AIT training and after taking a written test he got selected as a trainee of Batch 14. The training taught him practical skills such as heat detection, process of insemination and customer management.

Hakim finished the month long training in February 2013 and has been practicing as an artificial insemination technician since then. He earns an average monthly profit of Rs 30,000 which has enabled him to construct a new house for his family comprising of one room and a bathroom. "My family has seen very tough times as we did not even have permanent shelter and lived under a thatched roof of a mud house. Ever since I took the USAID-DRDF training our fortunes have changed. Now we have sufficient food and shelter."

In the future Hakim plans to expand the geographical area of his work and reach out to a greater number of farmers. His dream is to send his parents for Hajj.



## **Expanding Horizons**

## Dairy Project's training helps dairy farmer grow his business



"I am grateful for the USAID-DRDF Dairy Project's farmer training. In the future I will continue to invest in my dairy business and keep modernizing my farm for improved milk yields."

Muhummad Naeem Akhtar from village115/10-R, Tehsil Jahaniya, District Khanewal Mohammed Naeem Akhtar from village115/10-R, Tehsil Jahaniya, District Khanewal, took part in the Dairy Project's four day farmer training in December 2013. His family has always been in the dairy farming business; however, they were practicing traditional dairy farming methods, which resulted in low milk yields of their animals.

USAID-DRDF Dairy Project's social mobilization team visited village 115/10-R and informed the dairy farming community about the Dairy Project's capacity building initiatives. Naeem signed up for the four day farmer training as he was interested in modernizing his dairy shed. Through the training he learnt best practices such as deworming, vaccination, Vanda feeding, free access to water, silage making etc. "It was very beneficial to learn about the advantages of breed improvement as it is an inexpensive way to increase milk yields" he says.

Soon after Naeem received the training, he adopted the practices he had learnt. He used the services of the project's Artificial Insemination Technicians to inseminate 10 cows he owned. He also started deworming and vaccinating his animals and now gives them free access to water. By implementing these practices, the daily average milk yield per animal increased from 8 liters to 13 liters. This results in an additional profit of Rs 35,000 per month.

"I am proud of my growing dairy business. In the future I will continue to modernize my dairy farm to ensure that my animals are healthier and more productive," says Naeem.



## The On-Ramp to Success

## Dairy Project trains farm manager to improve livestock productivity



Ramadan maintaining record of his ear-tagged animals.

"The biggest difference that the training made to increase my profitability was to reduce the cost of labor on my farm. Secondly, the productivity of my animals increased and now each animal on average produces two liters more than it used to."

Muhammad Ramadan

Dairy Project trained farmer from Multan

Muhammad Ramadan is an ambitious and progressive dairy farmer who hails from the village of Basti Goharwala, Multan. He is the father of four children and owns 12 acres of land. Living in a small village he heard about the Diary Project's Farm Manager training from his neighbor, who is also a project-trained farmer. Keen to learn the best practices that his neighbor had learnt, Ramadan signed up for the Farm Managers training when the Dairy Project's Social Mobilization team visited his village.

"I wanted to get trained because although dairy farming is our age old profession, we have not seen any progression or development in this field" says Ramadan. "I wanted to learn how to adopt modern practices and improve the productivity of 35 animals that were in my shed." The month long farm managers' training teaches concepts such as animal handling, feeding, nutrition, shed management and breed improvement.

After completing the training, Ramadan constructed new feeding passages which were 14 feet wide and fenced his dairy shed so that animals could move around freely and consume water as they desired. These practices resulted in an increase of two liters of milk per animal. Heartened by his progress, Ramadan bought 15 more animals of the best dairy breed. His average monthly profit is now Rs 70,000 and his average milk yield per day is 150 liters.

"The biggest difference that the training made to increase my profitability was to reduce the cost of labor on my farm. Secondly, the productivity of my animals increased and now each animal on average produces two liters more than it used to" says Ramadan. In the future he wishes to further upgrade his farm by constructing a modern dairy shed. "Thanks to the Dairy Project, I have extra income which will enable me to send my children to the best schools in Multan" remarks a happy Muhammad Ramadan.



### A Hero's Victory

## Dairy Project trained WLEW earns a profit of Rs 57,863 in one month



Rukshanda preparing to vaccinate an animal as preventative medicine

"When I started the training, I had no assets, job or family support; however, in a matter of two years, I have proudly married two daughters, bought four cows as well as a motorbike to make work-related travel easy."

Rukshanda Naz, Dairy Project trained WLEW from 35WB, Vehari.

Rukshanda Naz, a single mother of four daughters is a project trained Woman Livestock Extension Worker (WLEW) who defines the attributes of prudence, persistence and practicality. Having lived in a small village of 35WB in Vehari, 34 year-old Rukshanda has single handedly brought up her family and battled financial difficulties that came her way in the absence of a male supporter. She heard about the Dairy Project's training through the project's social mobilization team that visited her village and sought an introduction of educated females in the area to enroll them in the training. The *Numberdar* (community leader) of the village connected the team to Rukshanda and she immediately signed up for the WLEW training.

"Throughout the training my trainers and the field team guided and counselled me. Often my family had no food to eat while I was taking the month long training, however, I chose to make short-term sacrifices for long term gain," says Rukshanda. After receiving the training and graduating at the top of her class, she was excited to start her own business and began informing villagers of her newly acquired skill. After receiving the free medicine kit given by the Dairy Project to its beneficiaries, she rented a small shop in her neighborhood and started selling medicines to the dairy farmers in her area.

Soon after, she started visiting dairy sheds and vaccinating, treating and deworming animals not only in her own village, but also in neighboring villages. Her profit in December 2013 was Rs 57,863 and her average quarterly profit is Rs 30,755 per month. "When I started the training, I had no assets, no job or family support, however, in a matter of two years, I have proudly married two daughters, bought four cows as well as a motorbike to make work-related travel easy," says a beaming Rukshanda.

These goals have not been easy for her to achieve. Often farmers she worked with would tell her that she wouldn't be able to control and restrain an animal. "Sometimes it seemed like farmers would wait for me to fall or get hurt while I was treating their animal. However, I believed in myself and did not stop working which is why I am successful."

Rukshanda is a firm believer of gender equality and is very grateful to the USAID Dairy Project for empowering her and giving her a steady source of income. "When there was nothing and no one whose support I could count on, the Dairy Project's training gave me a beacon of hope for my family's future. Today I own assets, can talk confidently to anyone and make all my decisions myself."



### Making a Difference

# Dairy Project-trained Woman Livestock Extension Worker reports outstanding profits



"I am really proud of my newly acquired skills and the ability to contribute to my household expenditure."

Rukhshanda Yaqoob, Dairy Project trained
WI FW from Khanewal

Rukhshanda Yaqoob belongs to the small village of 104/10-R new Tehsil Jahania, Khanewal. Being the eldest in her family of six sisters she felt an immense responsibility towards her family from an early age. While being a good student, Rukhshanda was pulled out of school after the completion of her secondary education. Her parents could not afford to send her to college and she was delegated the task of taking care of her sisters.

However, with the passage of time Rukhshanda realized that she must also extend a helping hand to assist her parents in financial matters. Unfortunately, her lack of education limited her from pursuing the careers of her choice and because of this conundrum she remained unemployed.

Opportunely, Rukhshanda and her mother met with USAID-DRDF Dairy Project's mobilization team in a community meeting in their area. Through this meeting she learnt that the Dairy Project was providing training to educated women to become Livestock Extension Workers. Realizing that this training would benefit her, Rukhshanda sent in her application.

Fortunately, she was selected for the training in the twelfth batch of Dairy Projects WLEW's. She learnt about animal disease prevention and basic livestock management. After she successfully completed the training, Rukhshanda obtained an initial support kit of medicine, 30 Vanda bags (high quality animal feed) and a mobile phone for easy communication with her clients and she immediately started her business.

Rukhshanda's sound communication skills and willingness to travel enabled her business to grow significantly. Since her graduation in July 2013, her average monthly profit has been around PKR 13,063. Being an enterprising individual, Rukhshanda reinvests her profits and deals in the trading of Vanda bags to dairy farmers. "I am really proud of my newly acquired skills and the ability to contribute to my household expenditure is extremely satisfying. I am most thankful to USAID-DRDF Dairy Project as this training has given me a source of income and raised my standard of living," remarked a beaming Rukhshanda Yaqoob.